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# FAMILY ECONOMICS REVIEW

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WINTER 1982

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JAN 1982

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**U.S. DEPARTMENT OF AGRICULTURE**  
Agricultural Research Service

**FAMILY ECONOMICS REVIEW** is a quarterly report on research relating to economic aspects of family living. It is prepared primarily for home economics agents and home economics specialists of the Cooperative Extension Service.

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Hyattsville, Md. 20782

Agricultural Research Service, Family Economics Review, Winter 1982

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Published by Agricultural Research Service,  
Northeastern Region, U.S. Department of Agriculture, Beltsville, Md. 20705

**FAMILY ECONOMICS REVIEW**

# FEDERAL INCOME TAXATION AND THE TWO-EARNER COUPLE

By Colien Hefferan<sup>1</sup>

Legislation to reduce the Federal income tax liability of two-earner couples was enacted in 1981 as part of a larger tax reform package (see insert on p. 5). Under the provisions of P.L. 97-34, married couples with two earners can deduct from family income 10 percent of the lower paid spouse's earnings up to a maximum income of \$30,000 per year. For two-earner married couples claiming the maximum deduction and paying the maximum rate of tax on earned income, 50 percent, the law will reduce their tax liability by \$1,500. The deduction will be phased in over 2 years, with a 5-percent deduction available in 1982 and the full 10 percent in 1983.

The legislation is designed to improve the equity and efficiency of the Federal income tax system as it applies to two-earner married couples. This segment of the population is expected to comprise 60 percent of all married couples and 32 percent of all households by 1990 (9, 10). As women gain in education and labor force experience, women's earnings are expected to approach the level of men's. Rising labor force participation rates of married women, as well as increasing earnings, have made the tax treatment of two-earner families an issue of growing importance.

## Background

Since the introduction of the Federal income tax nearly 70 years ago, three concerns regarding the tax treatment of families have arisen: (1) The tax burden of single persons relative to that of married couples, (2) treatment of the costs of children and other dependents in assessing tax burdens, and (3) the tax burden of married couples with one earner relative to that of equal-income married couples with two earners (4). Most recently, attention has focused on issues 2 and 3 as the labor force participation rate of married women increased

to just under 50 percent in 1979, up 9 percentage points since 1970 (11).

Family-related tax issues are difficult to resolve because the U.S. tax system is built on three broadly supported, but mutually conflicting, goals (8). Goal 1 is maintenance of progressivity, which means that the proportion of income paid in taxes should increase with income. This goal is based on the concept of declining marginal value of income and its corollary that taxpaying ability increases more than proportionately with income. Goal 2 is equal taxation of married couples with equal income. This is based on the premise that income and economic well-being are shared by husbands and wives regardless of who earns the income. Goal 3 is marriage neutrality, which implies that an individual's tax liability should not be dependent on marital status. This is based on both economic efficiency and equity considerations.

Goal 1 of maintaining progressivity cannot be met when both goal 2 of equal taxation and goal 3 of marriage neutrality are accommodated. An example illustrates this conflict (see Fig. 1 on p. 4). The four units (unit D contains two single taxpayers who must each file a single return) in the example have the same total income, \$20,000, but different composition and sources of earnings. For the tax system to meet the goal of married couples with equal income paying equal tax (goal 2), units A and B must pay the same tax. To meet the goal of marriage neutrality (goal 3), the tax liability of a single worker (unit C) must be the same as that of a married couple with the same income (unit A), and the tax of two single workers (unit D<sub>1</sub> and D<sub>2</sub>) must be the same as that of two equal earning married workers (unit B). When these conditions are met, then the tax paid by a single taxpayer earning \$20,000 (unit C) must equal that of two single taxpayers earning \$10,000 each (unit D<sub>1</sub> and D<sub>2</sub>). However, this violates the goal of progressivity (goal 1), which demands that tax rates rise with level of income. To meet this goal, the tax paid by unit C should be more than the combined tax of unit D<sub>1</sub> and unit D<sub>2</sub>.

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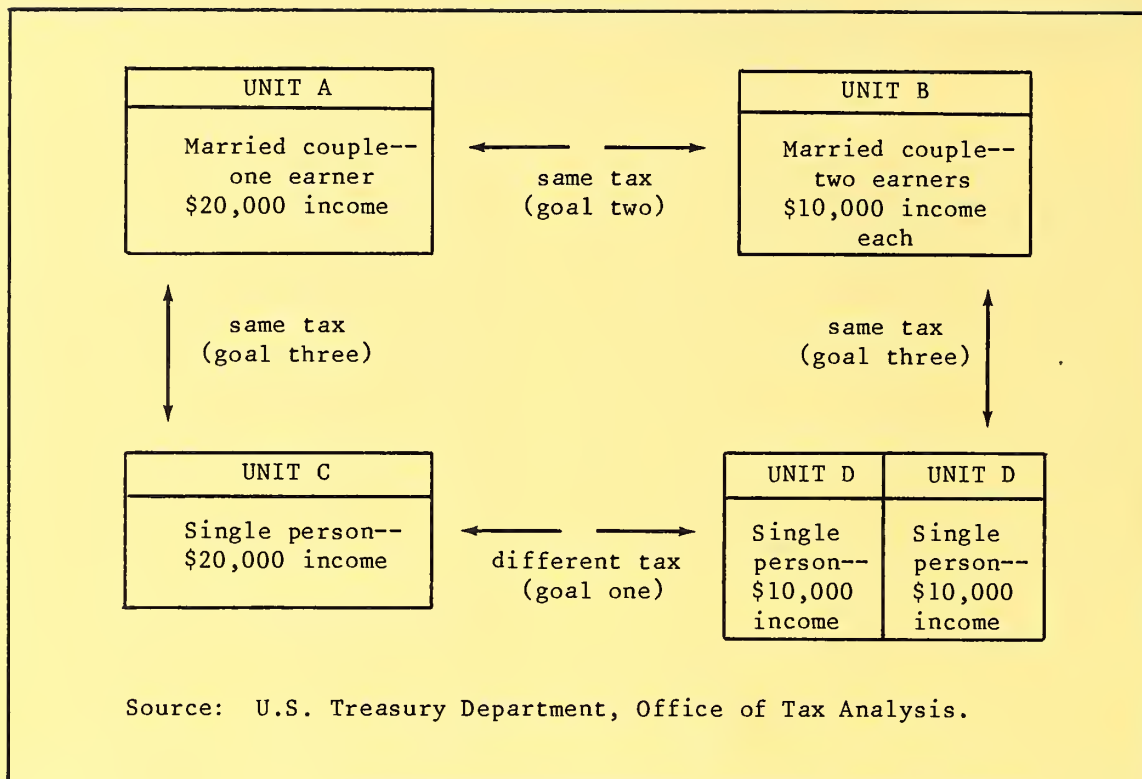


Figure 1

The family-related tax issues could be resolved only if one of the underlying goals were abandoned. Reduction of one inequity often creates another, generating the need for further tax reform. The history of the U.S. income tax system contains several examples of attempts to reduce the inequity of tax burdens for families of different types by abandoning one of those goals. In each case, reform itself created the need for further changes in the tax system.

1913-48. Prior to 1948, the individual rather than the family was the primary unit of taxation. One rate schedule was used for all taxpayers, regardless of marital status; exemptions were used to adjust tax for family size. The tax system was marriage neutral; however, couples with equal income did not necessarily pay equal tax. Residents of community property States could divide income between the husband and wife and thereby reduce their tax liability relative to that of married couples living in noncommunity property States. This inequity was resolved in 1948,

when the tax system was changed to allow all married couples to split their income.

1948-69. Income splitting for married couples was effected by instituting separate rate schedules in which the tax brackets were twice as wide as they were for single taxpayers. This system assured that married couples with equal income, regardless of number of workers, would pay equal tax, but the system was not marriage neutral. In a progressive tax structure, income splitting between husband and wife has the effect of creating a tax bonus for marrying and a penalty on remaining single. In 1969 Congress responded to the "singles' penalty" by lowering the tax rates for single individuals.

1969-81. Under the 1969 reforms, the tax rates still remained higher for single individuals than for married couples with equal income; therefore, the tax bonus remained for all one-earner married couples. Nonetheless, the singles' rate schedule would have been advantageous to some two-earner couples. If, by

## ECONOMIC RECOVERY TAX ACT OF 1981

The Economic Recovery Tax Act of 1981 (P.L. 97-34), signed into law on August 13, 1981, is purported to be the largest tax-cutting bill in U.S. history. It is estimated that the bill will save taxpayers more than \$700 billion over the next 6 years.

The law contains eight titles including Individual Income Tax Provisions, Business Incentive Provisions, Savings Provisions, Estate and Gift Tax Provisions, Tax Straddles, Energy Provisions, Administrative Provisions, and Miscellaneous Provisions. Several of these provisions substantially alter the tax liability of individuals and families.

Income tax rates will be reduced by 5 percent in 1981 and 10 percent in 1982 and in 1983. This will result in a cumulative reduction in individual tax rates of 23 percent over the period 1981 through 1984. Beginning in 1985, tax rates, exemptions, and the zero bracket amount will be indexed to reflect annual changes in the Consumer Price Index. This is designed to reduce "bracket creep," whereby tax liability for individuals and families increases when income is increased solely to keep up with inflation. The law also reduces the top marginal tax rate on investment income from 70 percent to 50 percent effective in 1982.

In addition to these broad tax reduction provisions, the Economic Recovery Tax Act also provides tax relief for families with child and dependent care expenses necessitated by gainful employment. Taxpayers with income below \$10,000 will be eligible for a child care credit equal to 30 percent of employment-related child care expenses up to \$2,400 (one dependent) or \$4,800 (two or more dependents). The credit will be reduced by 1 percent for each \$2,000 of income above \$10,000 down to a credit of 20 percent for taxpayers with income of \$30,000 or above.

Other provisions related to individual income taxes allow: (1) Non-itemizing taxpayers to deduct a portion of qualified charitable contributions, beginning in 1982; (2) taxpayers to deduct up to \$1,500 of certain expenses associated with the adoption of hard-to-place children, beginning in 1981; (3) taxpayers to defer gain on the sale of a principal residence, if a new residence is purchased within 2 years, on sales and exchanges after July 20, 1981 or for transactions with unexpired rollover periods (18 months under previous law); (4) taxpayers 55 years of age and older to increase the one-time exclusion of gain on principal residences from \$100,000 to \$125,000, on sales and exchanges after July 20, 1981.

Under the savings provisions of the Economic Recovery Tax Act, individuals will have a lifetime exclusion of \$1,000 (\$2,000 on joint returns) of interest paid on depository institution tax-exempt saving certificates issued after September 30, 1981. Eligibility for participation in Individual Retirement Accounts (IRA's) will be extended to all workers, regardless of participation in employer-sponsored retirement plans, effective in 1982. In addition, annual contribution limits on IRA's will be increased from \$1,500 to \$2,000 in 1982.

The gift and estate provisions of the law will exempt an estimated 99.7 percent of all estates from estate tax by 1987. Effective in 1982, the marital deduction will be unlimited. The annual gift tax exclusion will be increased from \$3,000 to \$10,000 per donee. Most gifts for medical care and tuition will receive unlimited exclusion.



filing separate returns using the singles' tax rate schedule, married earners could take advantage of the low marginal rates at the bottom of two tax schedules, they could reduce their tax liability to less than that of married couples with the same income but with only one earner. To maintain the goal of married couples with equal income paying equal tax, two-earner couples choosing to file separate returns were prohibited from using the singles' tax rate schedule. This created nonneutrality with respect to marriage and generated the "marriage penalty" under which two-earner couples found that the more similar their incomes, the greater their extra tax burden relative to two single persons.

The penalty and bonus structure generated by the separate rate schedules for married and single taxpayers, as it existed in 1980, is illustrated in figure 2. The penalties were greatest for married couples with equally distributed income and increased with level of income. For couples with less than \$25,000 in total taxable income and in which one spouse earns less than 20 percent of the income, the tax structure favored or only nominally penalized married taxpayers relative to single taxpayers. However, the marriage penalty increased to almost \$3,000 for two married workers each earning \$25,000 in taxable income.

An estimated 29 percent of all married couples were potentially subject to the marriage penalty imposed by the separate tax schedules in 1978. This is the percentage of all married couples in which there were two earners each contributing more than 20 percent of earnings (11). This represented 18 percent of all households.<sup>2</sup> Some couples were subject to very high marriage penalties. Assuming that married couples are taxed on approximately 75 percent of their total income, approximately 3 percent of all married couples, or just less than 2 percent of all households,

paid penalties in excess of \$500.<sup>3</sup> Other factors, including differences in the definition of income as a result of different zero bracket deductions for married and single taxpayers, further exacerbated the marriage penalty for some couples. As part of broader legislation to reduce all Federal income tax rates, Congress in 1981 acted to reduce, and in some cases eliminate, the marriage tax penalty.

## 1981 Tax Reform

Legislation to reduce the marriage penalty had wide appeal and broad support. Although the proportion of all households penalized by the tax structure in effect from 1969 through 1981 was relatively small, some couples were significantly penalized by the system. What is more, the proportion of couples affected by the marriage penalty was growing at a rapid pace. When the 1969 tax reform was implemented, both spouses were gainfully employed in only about 30 percent of all married couples (9, 10). Ten years later, almost 50 percent of all married couples had two earners. Continued growth in the proportion of married couples with two-earners is predicted.

Delegates to the White House Conference on Families in 1980 strongly recommended adoption of "major changes in the tax code to eliminate the marriage tax penalty. . ." as one way to reduce the economic pressures on marriage and family life (12). Others advocated reductions in the "working wives' tax" to encourage married women to participate in the paid labor force (1). Most of the arguments for reducing or eliminating the marriage tax penalty centered around the issues of economic equity and efficiency.

Equity. Under an equitable tax system, taxpaying units with equal ability to pay are taxed at equal rates. This implies that couples

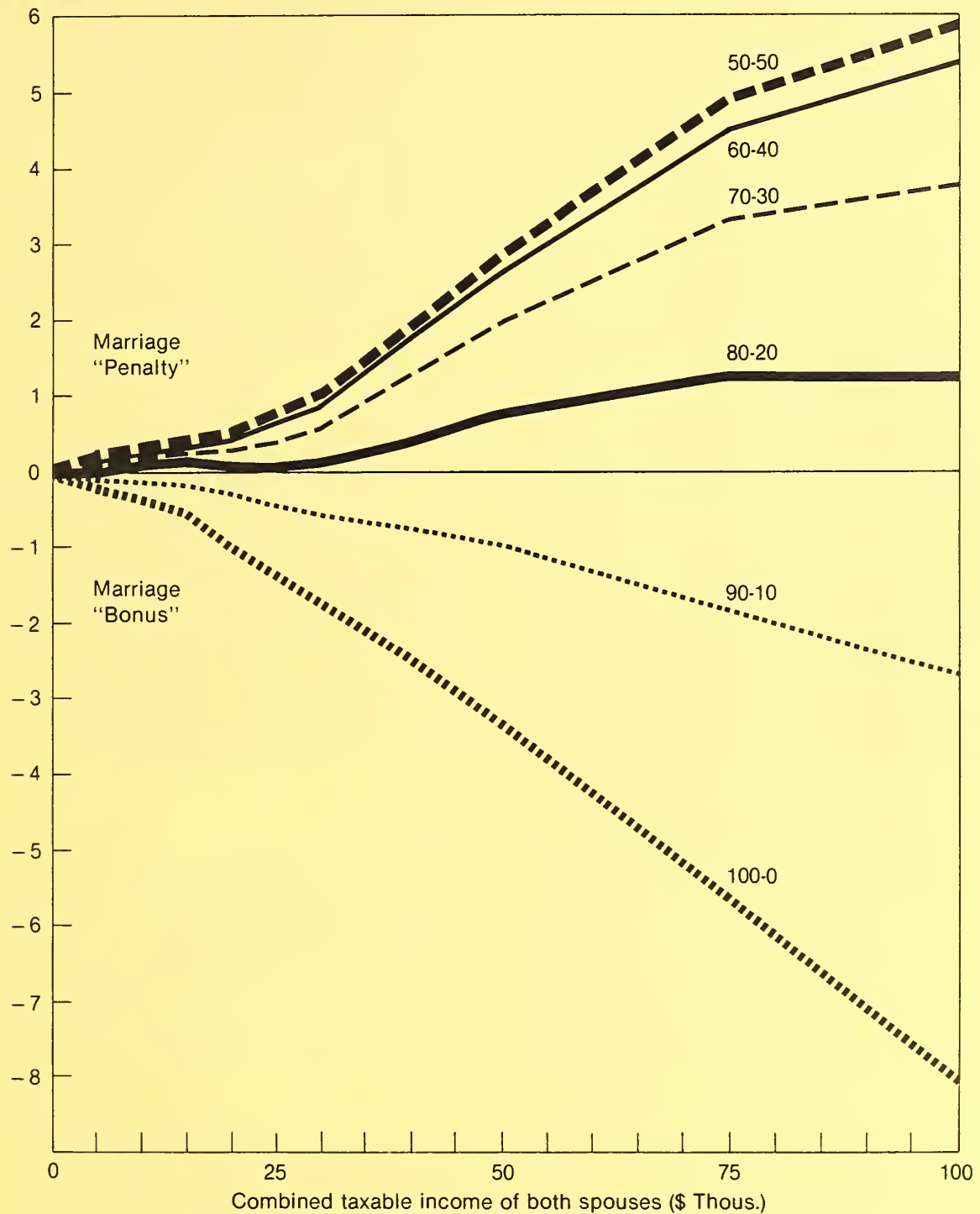
<sup>2</sup> Married couples constituted 62.3 percent of all households. Multiplying the 29 percent of all couples subject to the marriage penalty by 62.3 percent equals 18 percent of all households subject to the marriage penalty.

<sup>3</sup> This includes married couples with two earners each contributing in excess of 20 percent of family income and having total family income greater than \$50,000 (taxable income estimated to be in excess of \$37,500) and couples with two earners each contributing in excess of 30 percent of family income and having total family income greater than \$35,000 (taxable income estimated to be in excess of \$26,500).



## Marriage Tax Penalties and Bonuses, 1980

\$ Thous.



Additional tax liability of married couples compared to tax liability of 2 single taxpayers with the same combined income, by income split and level of income, calculated from 1980 tax schedule.

Figure 2

with the same income pay the same tax. Proponents of the reduction or elimination of the marriage penalty argued that two-earner couples with the same money income as one-earner couples enjoyed less imputed income from home-produced goods and services and incurred higher work-related expenses; therefore, their real income and their taxpaying ability were lower (5). They argued for a deduction to approximate the work-related expenses of secondary workers.

**Efficiency.** Efficient taxes raise revenue while causing minimal distortion in economic decisions (6). The question of economic efficiency arises in relation to the tax treatment of two-earner couples when labor force decisions of secondary workers are analyzed. Several researchers have reported that the labor force participation rates of wives, who are frequently the lesser earning or secondary workers in families, are highly responsive to changes in tax rates (2, 3, 7). By taxing the first dollar of these workers' income at the same rate as the last dollar of their spouses' income, they are discouraged from entering or fully participating in the paid labor force. Proponents of the 1981 tax reform argued that by deducting part of the secondary worker's earnings from taxable income, labor force decisions of couples would be less distorted by tax considerations.

**Implications.** Figure 3 illustrates the marriage tax penalties and bonuses projected for 1983 based on the 1981 tax reforms. Overall, the penalties and bonuses will be reduced, narrowing the gap between the tax liability of married couples and equal-income, single taxpayers. The marriage penalties will continue to be greatest for two-earner couples with similar or equal division of earnings between spouses, but unlike the old tax schedules, no two-earner couples with taxable income under \$30,000 will be subject to a marriage penalty in excess of \$500. At higher income levels, the extra tax liability of two-earner couples over that of two single persons will be significantly reduced from the 1969-81 levels. In 1983, for example, the projected marriage penalty for two married workers each earning \$25,000 in taxable income is less than \$1,500, compared with almost \$3,000 under the previous tax schedule.

Not only do the 1981 tax reforms change the relative tax liability of two-earner married couples and single taxpayers, but also the relative tax liability of two-earner and one-earner married couples. Under the provisions of the 1981 tax reforms, married couples with equal income do not necessarily have equal tax liability. Although the reforms reduce the tax rates for all married couples, two-earner couples benefit from a new deduction not available to one-earner couples. Couples with two earners pay less tax than single-earner couples with the same income because 10 percent of the lesser earning spouse's income, up to a maximum income of \$30,000, is tax deductible.

Examples of the differences in tax liability of equal-income, one-earner and two-earner married couples are projected for 1983 in the table on page 10. The differences constitute a "workers' bonus" for two-earner married couples compared with one-earner couples with the same income. The bonus is greater the more similar the division of earnings between spouses. The tax liability of a one-earner married couple earning \$50,000 will be more than \$400 greater than that of a two-earner married couple in which one spouse earns \$10,000 and the other earns \$40,000, and more than \$1,000 greater than that of a two-earner couple in which each spouse earns \$25,000.

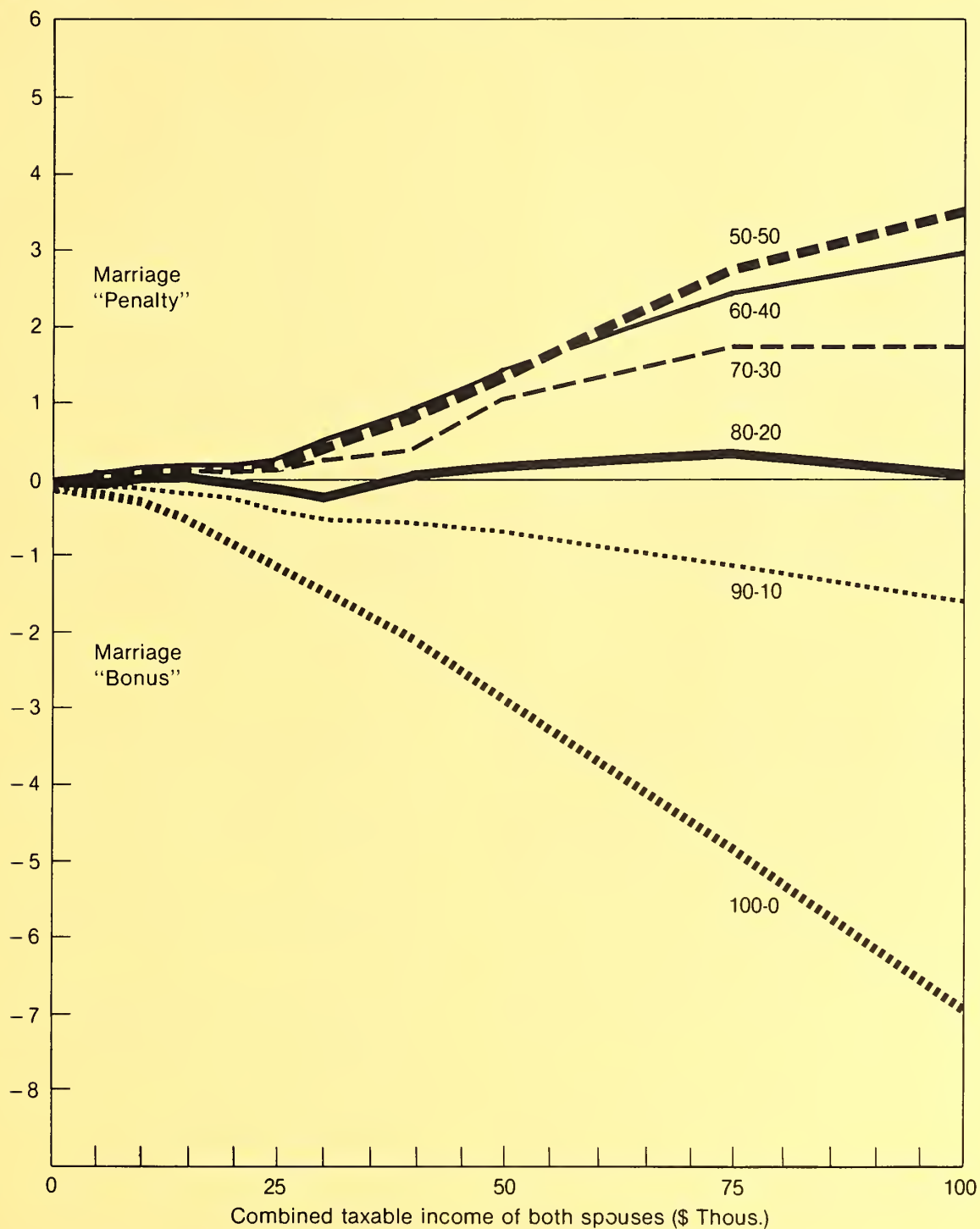
## Conclusions

The Federal income tax reforms of 1981 reduce the differences between the tax liability of two-earner married couples and two single taxpayers filing as individuals. In this respect, the reforms support the goal of marriage neutrality in the Federal income tax system. Although income tax liability is still influenced by marital status, the marriage penalty for two-earner couples has been significantly reduced.

In deciding in favor of marriage neutrality, Congress implicitly decided in the 1981 reforms to partially relax the goal of equal taxation of married couples with equal income. Recognizing the added expenses of employment in two-earner couples and the home production and leisure that may be foregone, provisions of the 1981 reform allow two-earner couples to adjust their taxable

## Marriage Tax Penalties and Bonuses, 1983

\$ Thous.



Additional tax liability of married couples compared to tax liability of 2 single taxpayers with same combined income, by income split and level of income, projected for 1983 under 1981 tax reform.

Figure 3

# Workers' bonus, 1983<sup>1</sup>

Family income	Share of combined income of lesser earning spouse				
	10%	20%	30%	40%	50%
	<i>Dollars</i>				
\$ 0 .....	0	0	0	0	0
\$ 5,000 .....	7	8	18	25	30
\$ 10,000 .....	15	20	46	61	77
\$ 15,000 .....	15	12	39	65	92
\$ 20,000 .....	42	82	124	165	206
\$ 25,000 .....	68	133	193	253	312
\$ 30,000 .....	92	299	256	502	420
\$ 40,000 .....	148	295	663	589	736
\$ 50,000 .....	181	418	628	838	1,047
\$ 75,000 .....	346	692	1,038	1,385	1,385
\$100,000 .....	504	1,009	1,513	1,513	1,513

<sup>1</sup> Difference in tax liability of equal-earning married couples with one earner versus two earners, by share of combined income of the lesser earning spouse, projected to 1983, based on 1981 tax reform.

income to lower their tax liability relative to that of equal income, one-earner couples.

The goals of progressivity, equal taxation of married couples with equal income, and marriage neutrality cannot be met simul-

taneously in the Federal income tax system. The 1981 tax reforms represent an adjustment in these goals to reflect the growing importance and impact of two-earner couples in the U.S. economic and social systems.

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# SINGLE-PARENT HOUSEHOLDS: AN ALTERNATIVE APPROACH

By Isabelle S. Payton<sup>1</sup>

The likelihood that a child will live with just one parent for part or all of his/her childhood has increased during the past decade. Between March 1970 and March 1980, the proportion of children living with one parent increased from 11 to 19 percent. The number of children living with one parent rose by nearly 4 million to 11.3 million (8). Some researchers have predicted that more than a third of the children born in the seventies will spend part of their childhood with just one parent (4, 14).

In 1980, there were 5.9 million primary one-parent families<sup>2</sup> and 9 out of 10 of these families were maintained by the mother. Of the mothers, 44 percent were divorcees, 27 percent were married but legally or informally separated from their husbands, 16 percent had never been married, and 13 percent were widows (21).

The economic situation among single-parent households varies with the sex and race of the parent. In March 1980, for example, a higher proportion of female-headed, single-parent families than male-headed, single-parent families were classified as living in poverty (40 and 16 pct, respectively). In 1979, the median income of single-parent families maintained by a female was \$8,100 compared to \$15,300 for families maintained by a male. The median family income of single-parent families headed by the mother was \$6,400 for blacks and \$9,200 for whites (9).

The image of the single-parent household that generally comes to mind is that of a divorced woman living alone with her children. Considerable variation exists, however, in the structure and composition of single-parent households. In March 1980, for example, about 1.4 million female-headed families with their own minor children also included at least one other relative (21). Epstein and Jennings (7) noted that other relatives were more likely to

live in one-parent households than in two-parent households. In addition, close to 0.8 million single-parent families were living as subfamilies<sup>3</sup> (21). Anderson-Khleif (1) and Bane and Weiss (4) found that female single parents often move in with their parent(s). Williams (23) focused on elderly black families and found that black female heads tended to have more young relatives living with them than their white counterparts. Other researchers have observed that elderly black females formed two- or three-generation households by including young children or single parents and their children in their homes (2, 3, 6, 10, 15, 22).

This paper will focus on differences in structure and composition of households headed by single parents. A typology for classification of such households into 12 categories is presented and then applied to data.

## Typology

Two factors provide the basis of the typology: (1) the presence or absence of additional adults and (2) the relationship of the head to the children (table 1). Households are classified as modified nuclear (mod-nuclear) or modified extended (mod-extended) depending on the first factor—the presence or absence of additional adults.<sup>4</sup> If a household consists of only the head and children, regardless of their relationship to one another, it is classified as a mod-nuclear single-parent household (types 1 to 3 in table 1). If, in addition to the head and children, another adult(s) is present in the home, the household is considered a mod-extended single-parent household (types 4 to 12).

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<sup>3</sup> A subfamily is a married couple with or without children, or one parent with own single children under 18 years old, living with and related to the householders.

<sup>4</sup> The term "modified" is used because the households are one-parent households and they may include nonrelated persons: nonrelated children in the case of mod-nuclear and/or nonrelated adults in the case of mod-extended.

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<sup>2</sup> A primary family includes among its members the person or couple who maintains the household, i.e., householder(s).

Table 1. Typology of single-parent headed households

Type	Example
<b>MODIFIED NUCLEAR</b> (only head and children in the home) <sup>1</sup>	
1. Natural parent <sup>2</sup> Own children—all related to the head by blood, marriage, or adoption.	Divorced, separated, widowed, or never-married parent raising his/her own children.
2. Surrogate parent Other children—all children other than the head's own	Lone adult raising his/her grandchildren, younger siblings, nieces, nephews, cousins, or foster children.
3. Natural-surrogate parent Own <i>and</i> other children	Divorced, separated, widowed, or never-married parent raising his/her own children <i>and</i> grandchildren, younger siblings, nieces, nephews, cousins, or foster children.
<b>MODIFIED EXTENDED</b> (head, children, and additional adults in the home) <sup>1</sup>	
Natural parent—own children	
4. Own adult children—all adults related to the head by blood, marriage, or adoption	Divorced, separated, widowed, or never-married parent sharing his/her home with only own children <i>and</i> adult children.
5. Other adults—all adults other than the head's own adult children	Divorced, separated, widowed, or never-married parent sharing his/her home with own children, <i>and</i> other adults, such as siblings, parents, nieces, nephews, cousins, and/or friends of either sex.
6. Multi-adults—own adult children <i>and</i> other adults	Divorced, separated, widowed, or never-married parent sharing his/her home with own children <i>and</i> adult children <i>and</i> other adults, such as siblings, parents, nieces, nephews, cousins and/or friends of either sex; spouses of adult children and/or other relatives.
Surrogate parent—other children	
7. Own adult children—all adults related to the head by blood, marriage, or adoption	Adult head sharing his/her home with grandchildren, younger siblings, nieces, nephews, cousins, or foster children <i>and</i> adult children.
8. Other adults—all adults other than the head's own adult children	Adult head sharing his/her home with grandchildren, younger siblings, nieces, nephews, cousins, or foster children <i>and</i> other adults, such as siblings, parents, nieces, nephews, cousins, and/or friends of either sex.
9. Multi-adults—own adult children <i>and</i> other adults	Adult head sharing his/her home with grandchildren, younger siblings, nieces, nephews, cousins, or foster children <i>and</i> adult children <i>and</i> other adults, such as siblings, parents, nieces, nephews, cousins, and/or friends of either sex; spouses of adult children and/or other relatives.
Natural-surrogate parent—own <i>and</i> other children	
10. Own adult children—all adults related to the head by blood, marriage, or adoption	Divorced, separated, widowed, or never-married parent sharing his/her home with own children <i>and</i> grandchildren, siblings, nieces, cousins, or foster children <i>and</i> adult children.
11. Other adults—all adults other than the head's own adult children	Divorced, separated, widowed, or never-married parent sharing his/her home with own children <i>and</i> grandchildren, siblings, nieces, nephews, cousins, or foster children <i>and</i> other adults, such as siblings, parents, nieces, nephews, cousins, and/or friends of either sex.
12. Multi-adults—own adult children and other adults	Divorced, separated, widowed, or never-married parent sharing his/her home with own children <i>and</i> grandchildren, siblings, nieces, nephews, cousins, or foster children <i>and</i> other adults, such as siblings, parents, nieces, nephews, cousins, and/or friends of either sex; spouses of adult children and/or other relatives.

<sup>1</sup> Children are all persons less than 18 years of age regardless of their relationship to the head. Adults are all persons 18 or more years of age.

<sup>2</sup> All of the children are the head's own children; this is considered as the traditional nuclear single-parent household.



Mod-nuclear and mod-extended single-parent households are subdivided on the basis of the second factor—the relationship of the head to the children. The single-parent may be designated as a natural parent, a surrogate parent, or a natural-surrogate parent. A *natural* parent is one who considers all children in the home as his/her own, including adopted and step-children. Within the mod-nuclear group, households of this composition are considered as traditional nuclear single-parent households (type 1 in table 1). A *surrogate* parent considers none of the children as his/her own. A *natural-surrogate* parent considers at least one child as his/her own, and at least one as an “other” child.

Based on the relationship of the additional adult(s) to the head, mod-extended households may be further classified according to inclusion of own adult children, other adult(s), or multi-adults. An adult who is the head's own child is an *own adult child*. The head's parents; adult siblings, nieces, nephews, or grandchildren; and friends are examples of *other adults*. *Multi-adult* households include two or more adults in addition to the head—one who is an adult child of the head and

one who is an “other” adult. Three-generation families containing one- or two-parent sub-families would be included in types 5 to 12.

The typology was applied to the Consumer Expenditure Survey data<sup>5</sup> (see insert below). Depending on who was designated as head of the household, some households of identical composition were excluded in the classification of single-parent-headed households. For example, if natural parents and their child were living with one of their parents (the child's grandparent) and designated that senior individual as head, the household was considered a single-parent (surrogate)-headed household and was included. If one of the parent-couple members was designated as head, the household was considered a two-parent household and was not included. In situations

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<sup>5</sup> Data derived from the Interview Survey Detailed Public Use Tape No. 2, 1972-73 Consumer Expenditure Survey, Bureau of Labor Statistics, U.S. Department of Labor. For this article, only those households that were headed by a person who was at least 18 years of age were included. The householders were urban dwellers and, at the time of the survey, had been in existence as a unit at least 1 year.

## DATA SOURCES ON SINGLE-PARENT HOUSEHOLDS

The most commonly used source of data for research on single-parent households is the Current Population Survey (CPS), conducted monthly by the Bureau of the Census. The primary purpose of the CPS is to provide labor force statistics for the U.S. Department of Labor, but it also provides a wealth of information on the social and economic status of the U.S. population. The basic unit of observation in the CPS is the household—defined as all individuals living together in a dwelling unit. Tabulations and research based on the CPS data have provided much information on single-parent households, including comparisons with the number and characteristics of two-parent households (5-8, 11-13, 16-21). Published CPS data, however, do not provide detail on household composition and have limited use in exploring different types of households headed by the single parent.

Data from the Consumer Expenditure Survey (CES) conducted by the Bureau of Labor Statistics of the U.S. Department of Labor are a particularly good base for the study of households of varying compositions. The unit of observation in the CES is the consumer unit—defined as two or more persons (related or unrelated) who pool their income and draw from a common fund for their major items of expense. Detail is provided on each member, including his/her age, sex, and relation to the head—the person designated as such by the other members of the unit. In addition, the CES provides detailed data on income characteristics and expenditure patterns.

where one household contained two single-parent components, each depending economically on the other, the household was identified as one single-parent household rather than two.

### Single-Parent-Headed Households in the CES

By use of the typology, 1,022 households headed by single parents were classified among the 19,975 households of the Consumer Expenditure Survey. Only 32 percent of the households were headed by blacks; whereas 68 percent of the households were headed by whites or other races. Exactly 90 percent of the households were headed by female single parents; the remaining 10 percent were headed by male single parents. The percentages are comparable to those reported in the 1972 and

1973 CPS. Of the primary single-parent families, about 32 percent were headed by blacks, and 91 percent were headed by females (16, 17).

The single parent with only his/her own children (type 1)—the household most typically identified as the single-parent family—accounted for only 56 percent of the total single-parent-headed households classified in the typology (table 2). Single parents heading households of alternate structure, therefore, accounted for 44 percent.

Mod-nuclear households, or households consisting of the head and children only (types 1 to 3), made up two-thirds of the households headed by single parents. The remaining one-third were mod-extended households (types 4 to 12), which consisted of another adult

Table 2. Households headed by single parents by type of household and race

Household type	Entire sample	Black	White
<i>Percent</i>			
Total . . . . .	100	100	100
Modified nuclear <sup>1</sup> . . . . .	67	67	66
1. Natural-parent <sup>2</sup> . . . . .	56	52	56
2. Surrogate parent <sup>3</sup> . . . . .	5	6	5
3. Natural-surrogate parent <sup>4</sup> . . . . .	6	9	5
Modified extended <sup>5</sup> . . . . .	33	33	34
Natural parent <sup>6</sup> . . . . .	16	11	18
4. Own adult children . . . . .	12	8	13
5. Other adults . . . . .	3	3	3
6. Multi-adults . . . . .	1	( <sup>7</sup> )	2
Surrogate parent <sup>3</sup> . . . . .	9	10	9
7. Own adult children . . . . .	4	6	5
8. Other adults . . . . .	3	3	2
9. Multi-adults . . . . .	2	1	2
Natural-surrogate parent <sup>4</sup> . . . . .	8	12	7
10. Own adult children . . . . .	6	10	5
11. Other adults . . . . .	1	( <sup>8</sup> )	1
12. Multi-adults . . . . .	( <sup>8</sup> )	( <sup>8</sup> )	( <sup>8</sup> )

<sup>1</sup> Only head and children in the home. Children are all persons less than 18 years of age regardless of their relationship to the head.

<sup>2</sup> All of the children are the head's own children; this is considered as the traditional nuclear single-parent household.

<sup>3</sup> None of the children is the head's own.

<sup>4</sup> At least 1 child is the head's own and at least 1 is an "other" child.

<sup>5</sup> The head, children, and additional adults in the home. Adults are all persons 18 or more years of age.

<sup>6</sup> All of the children are the head's own children.

<sup>7</sup> No households.

<sup>8</sup> Less than 1 percent.



in addition to the head and children. The majority of the mod-extended households included only those adults who were the head's older children; only a few households had at least one own adult child and at least one other adult.

The same proportion of black single parents as whites headed mod-nuclear households. Similarly both were equally as likely to head households that contained another adult (extended households). In both mod-nuclear and mod-extended natural-parent households, however, a greater proportion of white single parents than black single parents were living in a situation where all the children in the home were his/her own.

Just as it is important to recognize the growing number of children who are living at some point in their lives with just one parent, it is equally important to recognize the diversity of household structures that these children may experience. Single parents who head households, particularly black single parents, probably use these alternate household structures to ameliorate social and economic problems, especially those of child care and housing. It is important that educators and researchers consider how this diversity in household structure might affect the resource management needs of surrogate as well as natural single parents who head households.

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## HOUSEHOLDS AND FAMILIES, BY TYPE: MARCH 1980

According to the results of the March 1980 Current Population Survey there were 79.1 million households in the United States. This represents an increase of 15.7 million households (25 pct) since 1970, or an average annual increase of 1.6 million households over the 10-year span. Between 1970 and 1980, the number of nonfamily households, those maintained by a person living alone or with unrelated individuals, increased by 73 percent compared with a 13-percent increase in the number of family households. The dramatic growth in the number of nonfamily households appeared to be a function of the growing tendency for young adults to live independently from their parents before forming families of their own, and for older persons

to continue to maintain their own homes after their families dissolve. Despite the rapid growth in the number of nonfamily households, the vast majority of households (74 pct) still contain families.

The growing number of nonfamily households and the declining birth rate have led to a decline in average household size. Average household size in 1980 was 2.75 persons, down from 3.14 persons in 1970.

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Source: U.S. Department of Commerce, Bureau of the Census, 1980, Households and families, by type: March 1980 (advance report), *Current Population Reports*, Population Characteristics, Series P-20, No. 357.



# COST OF DOING LAUNDRY

By Joan C. Courtless<sup>1</sup>

## The Cost of Doing Laundry at Home

The cost of doing laundry at home depends on the amount spent for laundry equipment; the cost of operating the equipment, including gas, electricity, and water; and the cost of laundry supplies. Each of these contributing costs has increased since 1975, when laundry costs were last estimated for the Washington, D.C., area (7). Water and gas for heating water generally have increased the most although the cost of equipment (washers and dryers) has also risen substantially (see table 1 on p. 21).

Costs per load were higher overall in 1981 than they were in 1975. Based on six full loads per week, the cost per load for washing and drying was \$1.05 in 1981, up 59 percent from the cost per load of \$0.66 in 1975 (see table 2 on p. 21). This comparison is based on assumptions made to reflect common laundering practices for each year; the assumptions for 1981 were slightly different from those for 1975. In 1981, for example, repairs were assumed to be a smaller percentage of the cost of equipment. Households were assumed to be washing in warm rather than hot water, which reduced the amount of gas needed to heat the water but increased the need for laundry products.

The amount allocated towards repairs was lowered from 5 percent (used in 1975) of the purchase price of the washer and dryer to 2.5 percent. A survey of owners' experiences with repair costs indicated this was a more realistic figure (2).

In 1975, the cost of gas to heat the wash water to a "hot" temperature was included in the estimates. A 1976 survey, however, indicated that only one in four loads is washed in hot water (5). The 1981 estimates, therefore, provide for gas to heat wash water to a "warm" temperature. Several reasons account for the use of less hot water: High energy costs, consumer awareness of care requirements for specific fibers and fabric finishes, and changes

in equipment by manufacturers because of required energy labels.

The tripling of the cost of electricity and gas since 1970 (12) has caused consumers to become more conservation minded in their energy-intensive activities at home. About 95 percent of the total energy used in washing clothes is used in heating water (4, 9). Efforts to minimize utility bills, thereby resulting in energy conservation in the laundry process, include the use of lower water temperatures. On the average, a warm wash and cold rinse cycle reduces energy usage by two-thirds over a hot wash and warm rinse cycle (4, 9). Switching from a warm to a cold rinse saves approximately one-third of the total energy requirements (4).

Many garments made of synthetics and polyester/cotton blends have care labels that specify the use of warm wash water. Warm wash temperature is usually recommended so that the flame-resistant characteristics of treated sleepwear may be preserved.

The use of lower water temperatures will continue to increase in the future. Since May 1980, an energy cost rating has been required on labels of new clothes washers (see insert on page 18). To achieve a favorable energy cost rating, washer manufacturers have taken several steps. These may include eliminating the warm rinse option; a preprogramed selection of warm wash and cold rinse; and reducing the amount of hot water in the mixing valves. If the user manually selects other temperatures for a load, preprogramed washers will automatically reset for a warm wash and cold rinse for succeeding loads. Reducing the amount of hot water in a "warm" setting from a hot-to-cold ratio of 60/40 to 50/50, or even 40/60, will lower energy costs because less water is heated. The "warm" water temperature can reasonably vary from 80°F to 110°F depending on the mixing valve setting, hot water temperature as it reaches the washing machine, and ground water temperature (which varies seasonally).

Because the effectiveness of all laundry products is reduced as water temperature decreases, increased use of a variety of laundry supplies becomes desirable with a warm

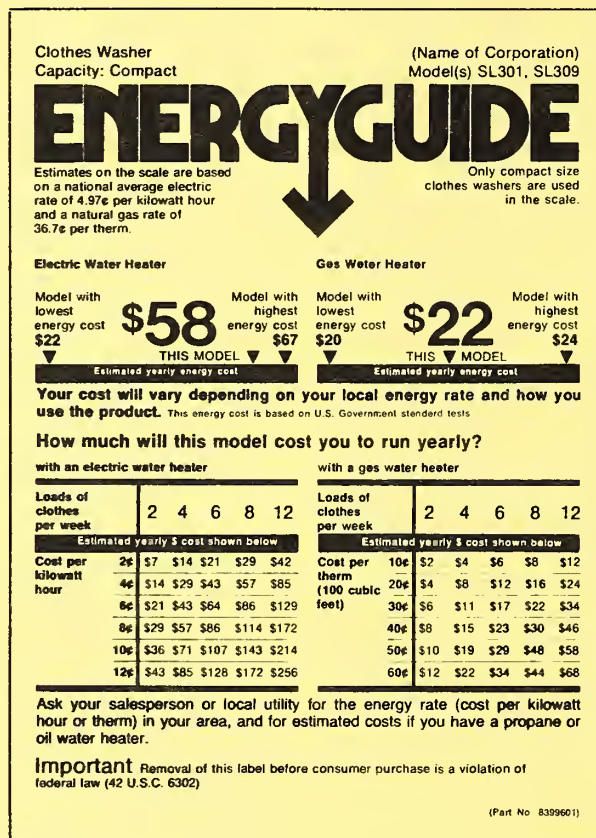
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## ENERGY GUIDE LABELS

Manufacturers of washing machines are required, as part of the Energy Policy and Conservation Act of 1975, to provide energy guide labels for clothes washers manufactured after May 19, 1980. Information on the label includes the estimated annual cost of operating the appliance and the range of operating costs of competing brands and models of similar size and features. These estimated energy costs are based on U.S. Government standard tests and a national average electric rate of 4.97¢ per kWh. The labels also provide tables from which the consumer can predict annual energy costs based on the number of loads of clothes washed per week and local utility rates, with either a gas or electric water heater. Current annual energy costs for washers with water heated by electricity range from \$34 to \$163; for washers with water heated by gas, estimates range from \$13 to \$58.

The Federal Trade Commission exempted clothes dryers from energy guide labeling because annual operating costs varied only \$4 for gas dryers (\$8 to \$12) and \$5 for electric dryers (\$39 to \$44).





water wash (4, 9). Hard water also significantly reduces the performance of detergents, bleaches, and fabric softeners; detergents use part of their cleaning capability to soften the water. About 85 percent of U.S. homes are in hard-water areas but only 10 percent have mechanical water softeners (10). Fabric softeners are used in 7 out of 10 American households (1). The 1981 cost estimates for laundry supplies given in this article assume the need for a larger amount of detergent than in 1975, and the addition of both a water softener and a fabric softener. The addition of the water and fabric softeners in 1981 is the primary reason for the large percentage increase in the cost of supplies between 1975 and 1981.

The cost per load varies by the water level and the number of loads done per week. For smaller loads requiring less water, the costs of supplies, water, and gas to heat the water decrease. The 1981 estimates for washing and drying laundry at home are given in detail in table 3 (p. 22). Following are descriptions of the methodology used to calculate costs in 1981.

**Cost of equipment.** This cost includes the original price, sales tax, finance charges for 24 months—amortized over 11 years for the washer and 14 years for the dryer (11)—and an additional 2.5 percent of the purchase price to cover the cost of repairs per year. Estimates for 1981 costs were based on an automatic washer costing \$365 (\$455 including tax and finance charges) and an electric dryer costing \$290 (\$362 with tax and finance charges).

Per-load costs were determined by dividing first by 52 to get a weekly figure, and then by the number of loads washed per week. The method of estimating the cost of equipment assumes that the service life of the appliance and its repair costs are the same regardless of how often the appliance is used. Therefore, the cost per load decreases as the number of loads per week increases. A shortened service life or additional repair costs because of increased use of the equipment would slightly change the cost per load.

**Cost of operation.** Operating costs include electricity to run the appliances, water, and gas to heat the wash water to a warm temperature, and were based on 1981 Washington, D.C., area utility rates. The cost of heating

water by electricity was not estimated for the costs of doing laundry at home because annual energy costs for washers average 2½ times as much with electric as with gas water heaters.<sup>2</sup>

The total amount of water used, by a washer at full capacity, was estimated at 48 gallons (4). The cost of water was \$2.22 per thousand gallons. Of the 48 gallons, 22 are used in the wash cycle (4). A 50/50 hot-to-cold ratio was used and a ground water temperature of 60°F was assumed. The cost of gas to heat 11 gallons from 60°F to 140°F at a rate of 43.3¢ per therm was included in calculating the operating costs.

The amount of electricity required to operate the washer for one cycle was estimated at 0.22 kWh (4), and to operate an electric dryer for about 30 minutes of drying time, 2.65 kWh were required (6). If two loads are dried consecutively, the second load takes less electricity because the dryer interior is preheated (3). The rate used was 5.9¢ per kWh. Dryer costs were not estimated separately because most (8 out of 10) American households with an automatic washer also have a dryer (4).

**Cost of supplies.** The cost for a detergent concentration of 0.20<sup>3</sup>, (rather than the 0.15 considered satisfactory in hot water), was included in the cost of supplies. (A recommended 1-1/4 cup per load would be increased to 1-2/3 cup to obtain a 0.20 concentration.) The cost of detergent was based on an average of six products, including liquids and powders. Cost of fabric softener was based on an average of six products including liquids and sheets used in the dryer. Liquid chlorine bleach was included in supplies. Some loads probably would be washed without bleach, which would slightly lower the cost of supplies per load.

### Self-Service Laundry Costs

Because the purchase of an automatic washer and dryer costs several hundred dollars,

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<sup>2</sup> Based on information from energy guide labels on 40 models of automatic washers from 7 manufacturers, summer 1981.

<sup>3</sup> A solution of 0.20 percent detergent and 99.80 percent water.

some families prefer to use a self-service laundry. The cost of doing laundry this way includes the charges for washing and drying, laundry supplies, and transportation. In the Washington, D.C., area typical charges are 75¢ for a washer load and 75¢ for 30 minutes of dryer time. Supplies would cost the same as

for laundry done at home, provided they are brought from home. Transportation costs currently average 25¢ per mile (8). When two or more loads are done each week, or when round-trip travel exceeds 2 miles, the cost of doing laundry is greater at a commercial facility than at home (table 4, p. 22).

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Table 1. Average costs for laundry equipment, utilities, and laundry supplies,  
Washington, D.C., area, 1975 and 1981<sup>1</sup>

Item	1975	1981	Increase
	----- Current dollars -----		Percent
Equipment			
Washer			
Purchase price, tax, finance charges . . . . .	304.75	454.53	49
Repairs and depreciation <sup>2</sup> . . . . .	42.94	52.68	23
Dryer			
Purchase price, tax, finance charges . . . . .	228.80	361.56	58
Repairs and depreciation <sup>2</sup> . . . . .	27.78	34.87	25
Operation			
Electricity, per kWh . . . . .	.051	.059	16
Gas, per therm . . . . .	.250	.433	73
Water (and sewer), per 1,000 gallons . . . . .	1.08	2.22	106
Supplies			
Detergent, 49-oz box . . . . .	1.45	1.73	19
Liquid chlorine bleach, per gallon . . . . .	.93	.94	1

<sup>1</sup> The Consumer Price Index for "All Items," Washington, D.C., area, increased by 66 percent between 1975 and May 1981.

<sup>2</sup> Annual costs.

Table 2. Cost per load<sup>1</sup> for laundry done at home in the Washington, D.C., area,  
1975 and 1981

Item	1975	1981	Increase
	----- Current dollars -----		Percent
Equipment <sup>2</sup> . . . . .	0.23	0.28	22
Washer . . . . .	.14	.17	21
Dryer . . . . .	.09	.11	22
Operation <sup>3</sup> . . . . .	.26	.33	27
Electricity . . . . .	.16	.17	6
Gas . . . . .	.05	.05	0
Water . . . . .	.05	.11	120
Supplies <sup>4</sup> . . . . .	.17	.44	159
Detergent . . . . .	.12	.20	67
Bleach . . . . .	.05	.05	0
Fabric softener . . . . .	( <sup>5</sup> )	.06	( <sup>5</sup> )
Water softener . . . . .	( <sup>5</sup> )	.13	( <sup>5</sup> )
Total . . . . .	.66	1.05	59

<sup>1</sup> Assumes 6 full loads per week.

<sup>2</sup> 1981 estimates are based on a new automatic washer costing \$455 (\$305 in 1975) and a new electric dryer costing \$362 (\$229 in 1975) on a 24-month installment plan, with average life expectancy of 11 years for the washer and 14 years for the dryer, and with 2.5 percent (5 pct of 1975) of the cost of appliances allowed for repairs.

<sup>3</sup> Includes cost of electricity to operate washer and dryer, water, and gas to heat wash water to hot (1975) or warm (1981) temperature. Based on 1975 and 1981 rates in the Washington, D.C., area.

<sup>4</sup> Detergent, liquid chlorine bleach at 1975 and 1981 prices; fabric softener and water softener at 1981 prices in Washington, D.C., area.

<sup>5</sup> These products were not used in the 1975 calculations.



Table 3. Estimated cost per load of laundry washed and dried at home in the Washington, D.C., area, 1981

Item	Number of loads done at home per week					
	3	4	5	6	8	10
<b>Water level</b>						
<b>Full (large load)</b>						
Equipment <sup>1</sup> . . . . .	\$0.56	\$0.42	\$0.34	\$0.28	\$0.21	\$0.17
Operation <sup>2</sup> . . . . .	.33	.33	.33	.33	.33	.33
Supplies <sup>3</sup> . . . . .	.44	.44	.44	.44	.44	.44
<b>Total</b> . . . . .	1.33	1.19	1.11	1.05	.98	.94
<b>3/4 full</b>						
<b>(medium load)</b>						
Equipment <sup>1</sup> . . . . .	.56	.42	.34	.28	.21	.17
Operation <sup>2</sup> . . . . .	.28	.28	.28	.28	.28	.28
Supplies <sup>3</sup> . . . . .	.33	.33	.33	.33	.33	.33
<b>Total</b> . . . . .	1.17	1.03	.95	.89	.82	.78
<b>1/2 full</b>						
Equipment <sup>1</sup> . . . . .	.56	.42	.34	.28	.21	.17
Operation <sup>2</sup> . . . . .	.24	.24	.24	.24	.24	.24
Supplies <sup>3</sup> . . . . .	.22	.22	.22	.22	.22	.22
<b>Total</b> . . . . .	1.02	.88	.80	.74	.67	.63

<sup>1</sup> Estimates based on a new automatic washer costing \$455 and a new electric dryer costing \$362 on a 24-month installment plan, with average life expectancy of 11 years for the washer and 14 years for the dryer, and with 2.5 percent of the cost of appliances allowed for repairs.

<sup>2</sup> Includes cost of electricity to operate washer and dryer, water, and gas to heat wash water to warm temperature. Based on 1981 rates in the Washington, D.C., area. Gas to heat water adjusted for washer water level.

<sup>3</sup> Detergent, liquid chlorine bleach, fabric softener, and water softener at 1981 prices in Washington, D.C., area. Amounts adjusted for washer water level.

Table 4. Cost per load of laundry done at home and in a self-service laundry,<sup>1</sup> 1981 costs, Washington, D.C., area

Number of loads	Laundry done at home <sup>2</sup>	Self-service laundry— distance traveled both ways, single trip		
		1 mile	2 miles	5 miles
1 . . . . .	\$2.45	\$2.19	\$2.44	\$3.19
2 . . . . .	1.61	2.06	2.19	2.56
3 . . . . .	1.33	2.02	2.11	2.36

<sup>1</sup> Estimates include charge for washer, 30 minutes dryer time, cost of transportation, and cost of supplies as used at home.

<sup>2</sup> Estimates based on loads per week.



# FOOD STAMP ALLOTMENT AND DIETS OF U.S. HOUSEHOLDS

By Betty B. Peterkin and Richard L. Kerr<sup>1</sup>

The cost of the thrifty food plan (1), which is used as the basis for the food stamp allotment, has been criticized by some as overly generous and by others as insufficient. The Consumer Nutrition Center used household food consumption behavior to address several questions about the allotment level: How reasonable is the allotment with respect to food costs of U.S. households? Do households with costs at the allotment level have nutritious diets? Did diet quality at the allotment level decline between 1965 and 1977-78?

Data to address these questions were derived from the Nationwide Food Consumption Survey 1977-78 (NFCS). Data on food consumption were collected from interviews with food managers in over 14,000 housekeeping households, drawn from a stratified probability sample in the 48 conterminous States. The managers reported the kinds, quantities, and prices (if purchased) of foods used during the 7 days prior to the interview. "Food used" (household diet) refers to all food that disappeared from household food supplies during the 7 days, whether it was eaten at home, carried from home in packed meals, discarded, or fed to animals.

## Food Costs

The money value of food used by households was estimated from the sum of reported prices paid for food purchased with money, food stamps, or on credit, plus values for foods produced at home and received as gift or pay. The value assigned to nonpurchased foods used by a household was the average price for comparable food reported by other households in the same region of the country. This money value of food used at home was adjusted to add an at-home value for meals eaten away from home by household members and to exclude the value of food eaten in the

household by guests, employees, and boarders. Then the adjusted value (food cost) was expressed as a percentage of the maximum food stamp allotment at the time of the survey for a household of the same size.

Food costs estimated for the households surveyed in 1977-78 varied from less than one-half to more than three times the maximum food stamp allotment for the thrifty level (see figure on p. 24).<sup>2</sup> Of these households, 12 percent had food costs below the maximum allotment level (thrifty), 5 percent had costs below 80 percent of the allotment, and almost none had costs below 50 percent of the allotment. About 30 percent of the households used food valued at twice the allotment level or more.

The percentages of households with food costs below hypothetical allotments based on USDA's three more expensive food plans—low-cost, moderate-cost, and liberal—were also estimated. Of the households studied, 30 percent had food costs below the allotment based on the low-cost plan, 52 percent had costs below that based on the moderate-cost plan, and 70 percent had costs below that based on the liberal plan. At the time of the survey, the cost for the low-cost plan for the four-person household used for food stamp purposes was 31 percent above the cost for the thrifty plan. The moderate-cost plan was 64 percent above, and the liberal plan, 97 percent above the cost for the thrifty plan.

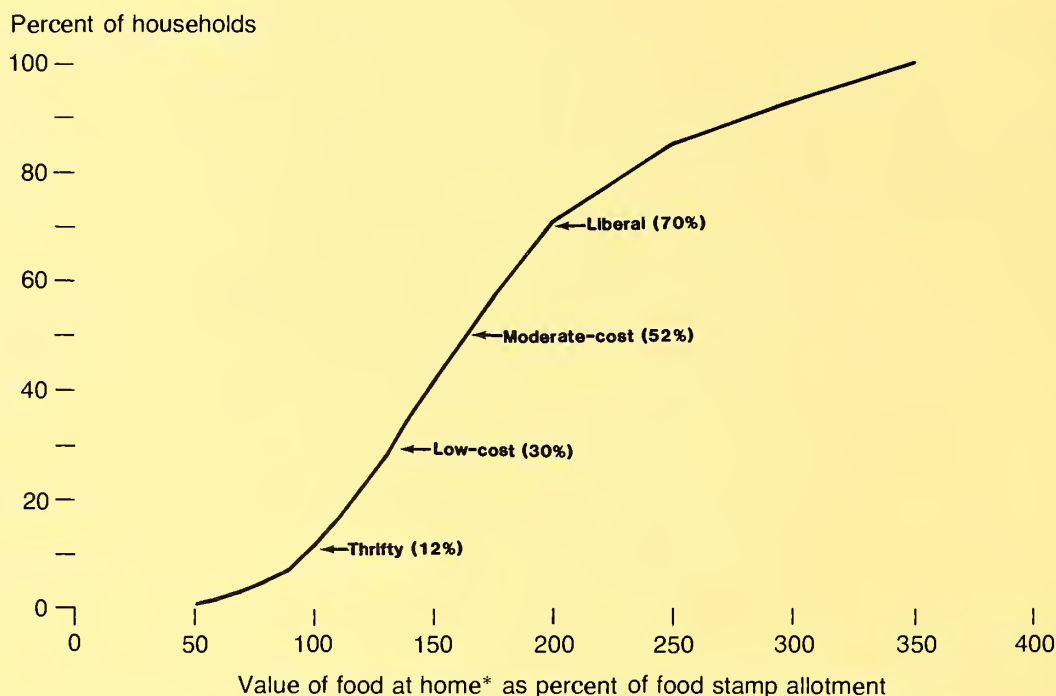
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<sup>1</sup>Supervisory home economist and economist, respectively, Consumer Nutrition Center, Human Nutrition Information Service.

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<sup>2</sup>The maximum value of food stamps, given to households with little or no income, is the cost of food in USDA's thrifty food plan (1) for a four-person household (man, woman, and two elementary-school-age children) adjusted for household size and economies associated with buying and using food in large compared with small households. At the time of the 1977-78 survey, all households in the Food Stamp Program received the maximum food stamp allotment, but some households had to pay for part of their food stamps. In 1979, the "purchase requirement" of the program was eliminated and eligible households with some income received food stamps equal to the maximum allotment minus 30 percent of their income.

## U.S. Households by Food Cost (cumulative distribution)



\* Food for household members only

USDA Nationwide Food Consumption Survey, 1977-78, 48 States

## Nutritional Quality of Diets

Each household's diet was appraised and two measures of the nutritional quality of diets of groups of households were used: The proportion of diets meeting the RDA's for all nutrients studied and the proportion of diets meeting at least 80 percent of the RDA's for these nutrients.

The nutritive value of the edible portion of foods used, adjusted for loss of vitamins during cooking, was calculated for each household. The nutrient content of each household diet was compared with recommended amounts of nutrients totaled for persons eating in the household. In this comparison, adjustments were made for food eaten away from home and for food eaten in the household by guests, employees, and boarders.

RDA's published in 1974 (2) for protein, calcium, phosphorous, iron, magnesium, vitamin A value, thiamin, riboflavin, vitamin B<sub>6</sub>,

vitamin B<sub>12</sub>, and vitamin C were used as standards.<sup>3</sup> Since the RDA's exceed the requirements of most individuals, failure to meet these standards is not evidence of poor food practices or malnutrition. Requirements of individuals of a given sex and age vary, and the RDA's are set high intentionally to cover requirements of essentially all healthy people in the country.

RDA's, although the best standard available, are not fully appropriate for household food consumption. RDA's apply to food intake, or food actually eaten; and food used by most households includes some edible food that is discarded or fed to animals, as well as food that is eaten. RDA's are for in-

<sup>3</sup>The use of the 1980 RDA's would not change substantially the results reported here. Levels of vitamin C, the only nutrient for which the RDA was increased significantly in 1980, are generally high in household diets reported.



dividuals classified by sex and age, but food in most households is used by several household members who differ in sex and age. Therefore, nutrient shortfalls of a member in one sex-age category may be compensated for by the excesses of a member in another category. Unless the household food is divided according to nutritional need, some members could have diets with lower nutrient levels than household food use indicates. On the other hand, if the total household food does not furnish the RDA's, some, if not all, members have diets that do not meet the RDA's.

Of the households 50 percent used food that provided the RDA's or more for all 11 nutrients studied, and 71 percent of the households met at least 80 percent of the RDA's (table 1). The nutrients for which household diets were most often below RDA's were calcium and vitamin B<sub>6</sub>; three out of 10 household diets failed to furnish the RDA's for these nutrients. Magnesium and vitamin A levels were below RDA in about 2 out of 10 households. Fewer than 1 in 10 failed to meet RDA's for protein, phosphorus, thiamin, riboflavin, and vitamin C.

Of households with food costs at the allotment level based on the thrifty food plan cost, 9 percent used food that met 100 percent of all 11 RDA's and 33 percent met at least 80 percent of the RDA's. At a cost level 15 percent below the allotment level, 3 percent of the households met 100 percent of the RDA's and 16 percent met 80 or more percent of the RDA's.

Households with food costs at the hypothetical allotment level based on the low-cost plan (31 pct above the thrifty plan cost) fared better nutritionally than households with costs at the allotment based on the thrifty plan. However, even an allotment based on the liberal plan (almost twice the thrifty plan level) would not assure that all diets meet the RDA's. At the liberal plan level, 31 percent failed to meet all 11 RDA's in full, and 11 percent failed to meet 80 percent of the RDA's.

These results indicate that many households in the 1977-78 survey did not select diets that were as nutritious as diets specified in the food plans. Regardless of food cost level, some households had diets that did not meet RDA's (or 80 pct of the RDA's) for the 11 nutrients studied. Households with limited food costs,

Table 1. Diet quality of households at four food cost levels, 1977-78

Food cost level <sup>1</sup>	Percent of households using food that furnished—	
	1974 RDA's for 11 nutrients <sup>2</sup>	80 percent of 1974 RDA's for 11 nutrients
All households . . . . .	50	71
Thrifty plan . . . . .	9	33
Low-cost plan . . . . .	31	64
Moderate-cost plan . . .	52	81
Liberal plan . . . . .	69	89

<sup>1</sup> Cost of food in the USDA food plans for a four-person household (man and woman 20-54 and children 6-8 and 9-11 years of age) adjusted for household size and economy of scale factors used in establishing the food stamp allotment.

<sup>2</sup> Protein, calcium, phosphorus, iron, magnesium, vitamin A value, thiamin, riboflavin, vitamin B<sub>6</sub>, vitamin B<sub>12</sub>, and vitamin C.

Source: 14,400 housekeeping households, Nationwide Food Consumption Survey 1977-78, 48 States.

however, were less likely than those with higher food costs to have diets that furnished recommended nutrient levels.

### Improvement in Diets Since 1965

Prior to the 1977-78 survey, results from a 1965 survey were used as indicators of the quality of diet that might be expected at the food plan cost levels. When the 1965 survey was conducted, there were four food plans in existence which were similar, but not identical, to the current thrifty, low-cost, moderate-cost, and liberal plans. The least costly of the plans in 1965, the economy plan, was used for food stamp purposes prior to 1975. A 1969 study estimated the proportions of households surveyed in spring 1965 that used food at the four food plan cost levels that met the 1964 RDA's for seven nutrients (3). (Phosphorous, vitamin B<sub>6</sub>, vitamin B<sub>12</sub>, and magnesium were not included in the 1969 study.) At the economy plan cost, fewer than 10 percent had diets that met the seven RDA's in 1965 (table 2, p. 26). The percentage of household diets meeting RDA's at the low-cost, moderate-cost, and liberal food plan cost levels were 30, 50, and 60 percent, respectively.

Table 2. Households using food that met RDA's for 7 nutrients,<sup>1</sup>  
spring 1965 and in 1977-78 at 4 cost levels<sup>2</sup>

Food cost level	Percent of households meeting 1964 RDA's, Spring 1965	Percent of households meeting 1974 RDA's, 1977-78 <sup>3</sup>
Thrifty plan (economy plan in 1965) . . . . .	Fewer than 10	20
Low-cost plan . . . . .	30	45
Moderate-cost plan . . . . .	50	63
Liberal plan . . . . .	60	77

<sup>1</sup> Protein, calcium, iron, vitamin A value, thiamin, riboflavin, and Vitamin C.

<sup>2</sup> Although different procedures, RDA's, food plans, and rounding were used with 1965 data (10) than with 1977-78 data, appraisals were considered to be appropriate for their respective periods.

<sup>3</sup> 14,400 housekeeping households, Nationwide Food Consumption Survey 1977-78, 48 States.

When the same seven nutrients were considered for 1977-78 households, more diets met the RDA's at each of the four food cost levels than in 1965. Proportions of households surveyed in 1977-78 that met the 1974 RDA's for 11 nutrients at allotment levels from the four food plans, as shown in table 1, were as high or higher than proportions surveyed in 1965 that met the 1964 RDA's for 7 nutrients at the comparable food plan costs.

Part of the apparent improvement between 1965 and 1977-78 in diet quality at all levels of cost was attributed to increases in the levels of dietary vitamin C. Average vitamin C content of household food in spring was 35 percent higher in 1977 than in 1965 (4). In spring 1965, diets in 27 percent of the households

failed to provide the 1964 RDA; in 1977-78, diets in only 6 percent failed to provide the 1974 RDA.

Estimates in the 1969 (3) study differ from those in this study in several respects, such as the procedures used for determining food costs and nutrient levels of survey households, seasons covered by the survey, inclusion of one-person households, the makeup of the four food plans, the RDA's used as standards, the nutrients covered, and rounding of data. Even so, the estimates were considered appropriate for their respective periods. Furthermore, comparison of these estimates suggests that the nutritional value of diets at the allotment level improved between the 1965 and 1977-78 surveys.

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## FERTILITY OF AMERICAN WOMEN: JUNE 1979

The average number of lifetime births expected by wives 18 to 24 years old declined from 2.9 births in 1967 to 2.4 births in 1971 and 2.2 births in 1979. There is an increasing tendency for women to delay marriage and childbirth. Although the median age at first marriage remained at approximately 20.3 years for women who married between 1950 and 1969, delayed marriages increased the median age to 21.2 years for women who married during the 1975-79 period. The median age of a woman at the birth of her first child was 22.2 years in the first half of the fifties. The median age subsequently declined to 21.4 years during the sixties, but then increased to 22.3 years between

1975 and 1979. The proportion of women having their first child after age 30 did not differ significantly between the periods of 1975-1979 and 1955-59.

The longer a woman postponed childbearing after her first marriage, the less likely she was to expect to have children. Childless wives under 30 years old who had been married for less than 2 years were more likely to expect to have children than those who had been married for at least 5 years.

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Source: U.S. Department of Commerce, Bureau of the Census, 1980, Fertility of American women: June 1979, *Current Population Reports*, Population Characteristics, Series P-20, No. 358.

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# COST OF MEATS AND MEAT ALTERNATES

By Cynthia C. Junker<sup>1</sup>

The meat, poultry, and fish items in meals usually cost more than other items. Because, however, the range in costs of different types and cuts of meats is great, careful selection may result in worthwhile savings.

Estimated costs in the Washington, D.C., area of 3-ounce servings of cooked lean from selected types and cuts of meat and of poultry and fish are shown in table 1. The economy-minded shopper can replace some of the meats ordinarily used with alternates such as dry beans and peas, peanut butter, and eggs. These foods provide protein and other nutrients for which meat, poultry, and fish are valued. Cheese can also be used.

One way to find good buys among meats and meat alternates is to compare the costs on the basis of equal amounts of protein. Table 2 shows the cost of amounts of some meats and alternates required to give 20 grams of protein—one-third of the daily recommended allowance for a 20-year-old man.

A 3-ounce serving of cooked lean meat from beef, pork, lamb, veal, chicken, turkey, or fish provides about 20 grams of protein or more. For some meats and alternates, however, well over a 3-ounce serving is required to provide 20 grams of protein—such as 10 slices of bacon, 4 frankfurters, 3½ eggs, or 4½ tablespoons of peanut butter.

An estimated average price in the Washington, D.C., area and the part of a pound or other market unit required to provide a 3-ounce serving of cooked lean meat (table 1)

<sup>1</sup> Home economist, Consumer Nutrition Center, Human Nutrition Information Service.

Table 1. Cost of 3 ounces of cooked lean from specified meat, poultry, and fish at July 1981 prices

Food	Retail price per pound <sup>1</sup>	Part of pound for 3 ounces of cooked lean	Cost of 3 ounces of cooked lean
Beef liver . . . . .	\$1.07	0.27	\$0.29
Ham, whole, bone in . . . . .	1.01	.35	.35
Turkey, ready-to-cook . . . . .	.90	.41	.37
Chicken, whole, ready-to-cook . . . . .	.72	.55	.40
Ground beef, regular . . . . .	1.52	.28	.43
Pork shoulder, smoked, bone in . . . . .	.96	.46	.44
Ground beef, lean . . . . .	1.82	.26	.47
Ocean perch, filet, frozen . . . . .	1.80	.27	.49
Ham, canned . . . . .	2.21	.25	.55
Chicken breasts . . . . .	1.50	.40	.60
Haddock, filet, frozen . . . . .	2.24	.27	.60
Rump roast of beef, bone out . . . . .	2.06	.34	.70
Pork loin roast, bone in . . . . .	1.56	.51	.79
Chuck roast of beef, bone in . . . . .	1.82	.45	.82
Pork chops, center cut . . . . .	2.20	.45	.99
Round beefsteak, bone in . . . . .	3.14	.34	1.07
Sirloin beefsteak, bone in . . . . .	3.17	.43	1.36
Rib roast of beef, bone in . . . . .	3.28	.45	1.48
Veal cutlets . . . . .	6.76	.25	1.69
Lamb chops, loin . . . . .	3.77	.46	1.73
Porterhouse beefsteak, bone in . . . . .	4.14	.52	2.15

<sup>1</sup> An average using prices for 4 consecutive weeks in 5 Washington, D.C., area supermarkets.

or 20 grams of protein (table 2) are shown for each meat and meat alternate for which costs were compared. These cost comparisons show, in general, which cuts of meat and types of meat alternates are expensive and inexpensive

choices; however, consumers need to compare costs using prices at stores where they shop. To figure a comparable cost at a different price, multiply the store's retail price by the part of a pound or other market unit shown.

Table 2. Cost of 20 grams of protein from specified meats and meat alternates at July 1981 prices

Food	Market unit	Price per market unit <sup>1</sup>	Part of market unit to give 20 grams of protein <sup>2</sup>	Cost of 20 grams of protein
Bread, white, enriched <sup>3</sup>	22 oz	\$0.31	0.37	\$0.11
Dry beans	lb	.52	.24	.13
Eggs, large	doz	.80	.28	.22
Beef liver	lb	1.07	.24	.26
Bean soup, canned	11.25 oz	.35	.82	.29
Turkey, ready-to-cook	lb	.90	.33	.30
Milk, whole, fluid <sup>4</sup>	half-gal	.96	.31	.30
Chicken, whole, ready-to-cook	lb	.72	.42	.30
Ham, whole, bone in	lb	1.01	.30	.30
Pork shoulder, smoked, bone in	lb	.96	.32	.31
Peanut butter	12 oz	1.48	.23	.34
Tuna, canned	6.5 oz	.83	.44	.37
Chicken breasts	lb	1.50	.27	.41
Sardines, canned	3.75 oz	.49	.86	.42
Ground beef, lean	lb	1.82	.25	.45
Frankfurters	lb	1.21	.39	.47
American process cheese	8 oz	1.28	.40	.51
Pork loin roast, bone in	lb	1.56	.33	.51
Ham, canned	lb	2.21	.24	.53
Rump roast of beef, bone out	lb	2.06	.26	.54
Bacon, sliced	lb	1.04	.52	.54
Pork sausage	lb	1.14	.48	.55
Ocean perch, filet, frozen	lb	1.80	.31	.56
Chuck roast of beef, bone in	lb	1.82	.35	.64
Haddock filet, frozen	lb	2.24	.31	.69
Round beefsteak, bone in	lb	3.14	.23	.72
Bologna	8 oz	.99	.75	.74
Pork chops, center cut	lb	2.20	.35	.77
Sirloin beefsteak, bone in	lb	3.17	.28	.89
Rib roast of beef, bone in	lb	3.28	.33	1.08
Lamb chops, loin	lb	3.77	.32	1.21
Porterhouse beefsteak, bone in	lb	4.14	.34	1.41
Veal cutlets	lb	6.76	.23	1.55

<sup>1</sup> An average using prices for 4 consecutive weeks in 5 Washington, D.C., area supermarkets. Prices for processed items are for the least costly brand in the market unit specified.

<sup>2</sup> One-third of the daily amount recommended for a 20-year-old man. Assumes that all meat is eaten.

<sup>3</sup> Bread and other grain products, such as pasta and rice, are frequently used with a small amount of meat, poultry, fish, or cheese as main dishes in economy meals. In this way the high-quality protein in meat and cheese enhances the lower quality of protein in cereal products.

<sup>4</sup> Although milk is not used to replace meat in meals, it is an economical source of good-quality protein.

Source: U.S. Department of Agriculture, Human Nutrition Information Service, Consumer Nutrition Center, Hyattsville, Md. 20782.



# UPDATED ESTIMATES OF THE COST OF RAISING A CHILD

The cost of raising urban children: June 1981<sup>1</sup>

Age of child (years)	Total	Food at home <sup>2</sup>	Food away from home	Clothing	Housing <sup>3</sup>	Medical care	Educa- tion	Transpor- tation	All other <sup>4</sup>
<b>NORTH CENTRAL</b>									
Under 1 . . . . .	\$3,709	\$517	\$0	\$128	\$1,620	\$219	\$0	\$773	\$452
1 . . . . .	3,827	635	0	128	1,620	219	0	773	452
2-3 . . . . .	3,568	635	0	208	1,424	219	0	673	409
4-5 . . . . .	3,784	729	122	208	1,424	219	0	673	409
6 . . . . .	3,922	705	122	288	1,350	219	91	673	474
7-9 . . . . .	4,087	870	122	288	1,350	219	91	673	474
10-11 . . . . .	4,251	1,034	122	288	1,350	219	91	673	474
12 . . . . .	4,548	1,058	147	416	1,399	219	91	723	495
13-15 . . . . .	4,665	1,175	147	416	1,399	219	91	723	495
16-17 . . . . .	5,134	1,316	147	576	1,448	219	91	798	539
Total . . . . .	75,736	16,478	1,858	5,632	25,528	3,942	1,092	12,764	8,442
<b>NORTHEAST</b>									
Under 1 . . . . .	3,685	611	0	128	1,645	219	0	673	409
1 . . . . .	3,826	752	0	128	1,645	219	0	673	409
2-3 . . . . .	3,724	729	0	224	1,498	219	0	623	431
4-5 . . . . .	3,940	823	122	224	1,498	219	0	623	431
6 . . . . .	4,198	823	147	304	1,473	219	114	623	495
7-9 . . . . .	4,362	987	147	304	1,473	219	114	623	495
10-11 . . . . .	4,574	1,199	147	304	1,473	219	114	623	495
12 . . . . .	4,864	1,199	147	448	1,522	219	114	698	517
13-15 . . . . .	5,005	1,340	147	448	1,522	219	114	698	517
16-17 . . . . .	5,379	1,481	171	560	1,547	219	114	748	539
Total . . . . .	79,908	18,830	2,056	5,888	27,302	3,942	1,368	11,864	8,658
<b>SOUTH</b>									
Under 1 . . . . .	4,034	564	0	144	1,743	243	0	823	517
1 . . . . .	4,152	682	0	144	1,743	243	0	823	517
2-3 . . . . .	3,890	658	0	224	1,547	243	0	723	495
4-5 . . . . .	4,083	729	122	224	1,547	243	0	723	495
6 . . . . .	4,295	729	147	304	1,473	243	137	723	539
7-9 . . . . .	4,436	870	147	304	1,473	243	137	723	539
10-11 . . . . .	4,624	1,058	147	304	1,473	243	137	723	539
12 . . . . .	4,934	1,058	171	448	1,522	243	137	773	582
13-15 . . . . .	5,075	1,199	171	448	1,522	243	137	773	582
16-17 . . . . .	5,465	1,316	171	576	1,571	243	137	848	603
Total . . . . .	82,072	16,762	2,152	5,952	27,742	4,374	1,644	13,664	9,782
<b>WEST</b>									
Under 1 . . . . .	3,971	564	0	128	1,694	267	0	823	495
1 . . . . .	4,112	705	0	128	1,694	267	0	823	495
2-3 . . . . .	3,897	682	0	208	1,522	267	0	723	495
4-5 . . . . .	4,138	776	147	208	1,522	267	0	723	495
6 . . . . .	4,414	752	171	304	1,498	267	114	748	560
7-9 . . . . .	4,579	917	171	304	1,498	267	114	748	560
10-11 . . . . .	4,790	1,128	171	304	1,498	267	114	748	560
12 . . . . .	5,064	1,128	171	432	1,547	267	114	823	582
13-15 . . . . .	5,182	1,246	171	432	1,547	267	114	823	582
16-17 . . . . .	5,694	1,410	196	544	1,620	267	114	897	646
Total . . . . .	83,882	17,630	2,396	5,728	27,892	4,806	1,368	14,112	9,950

<sup>1</sup> Annual cost of raising a child from birth to age 18, by age, in a husband-wife family with no more than 5 children, spending at the *moderate* cost level. For more information on these and additional child cost estimates, see USDA Miscellaneous Publication No. 1411 by Carolyn S. Edwards, "USDA Estimates of the Cost of Raising a Child: A Guide to Their Use and Interpretation." Available free from: USDA, Family Economics Research Group, Federal Building, 6505 Belcrest Road, Hyattsville, Maryland 20782.

<sup>2</sup> Includes home-produced food and school lunches.

<sup>3</sup> Includes shelter, fuel, utilities, household operations, furnishings, and equipment.

<sup>4</sup> Includes personal care, recreation, reading and other miscellaneous expenditures.

The cost of raising rural nonfarm children: June 1981<sup>1</sup>

Age of child (years)	Total	Food at home <sup>2</sup>	Food away from home	Clothing	Housing <sup>3</sup>	Medical care	Educa- tion	Transpor- tation	All other <sup>4</sup>
<b>NORTH CENTRAL</b>									
Under 1 . . . . .	\$3,505	\$470	\$0	\$112	\$1,547	\$219	\$0	\$748	\$409
1 . . . . .	3,623	588	0	112	1,547	219	0	748	409
2-3 . . . . .	3,224	564	0	176	1,301	194	0	623	366
4-5 . . . . .	3,416	658	98	176	1,301	194	0	623	366
6 . . . . .	3,671	658	122	272	1,277	194	91	648	409
7-9 . . . . .	3,812	799	122	272	1,277	194	91	648	409
10-11 . . . . .	4,000	987	122	272	1,277	194	91	648	409
12 . . . . .	4,311	987	122	416	1,326	194	91	723	452
13-15 . . . . .	4,429	1,105	122	416	1,326	194	91	723	452
16-17 . . . . .	4,763	1,222	147	512	1,350	219	91	748	474
Total . . . . .	70,639	15,277	1,710	5,248	23,964	3,592	1,092	12,264	7,492
<b>NORTHEAST</b>									
Under 1 . . . . .	4,066	564	0	128	1,743	219	0	873	539
1 . . . . .	4,184	682	0	128	1,743	219	0	873	539
2-3 . . . . .	3,996	658	0	208	1,596	219	0	798	517
4-5 . . . . .	4,237	752	147	208	1,596	219	0	798	517
6 . . . . .	4,512	752	171	304	1,571	219	137	798	560
7-9 . . . . .	4,653	893	171	304	1,571	219	137	798	560
10-11 . . . . .	4,865	1,105	171	304	1,571	219	137	798	560
12 . . . . .	5,167	1,105	171	464	1,620	219	137	848	603
13-15 . . . . .	5,308	1,246	171	464	1,620	219	137	848	603
16-17 . . . . .	5,784	1,387	196	608	1,669	219	137	922	646
Total . . . . .	85,576	17,324	2,396	5,984	29,114	3,942	1,644	14,962	10,210
<b>SOUTH</b>									
Under 1 . . . . .	4,208	564	0	144	1,743	243	0	997	517
1 . . . . .	4,302	658	0	144	1,743	243	0	997	517
2-3 . . . . .	3,897	635	0	224	1,498	243	0	823	474
4-5 . . . . .	4,138	729	147	224	1,498	243	0	823	474
6 . . . . .	4,276	705	147	304	1,448	243	114	798	517
7-9 . . . . .	4,417	846	147	304	1,448	243	114	798	517
10-11 . . . . .	4,605	1,034	147	304	1,448	243	114	798	517
12 . . . . .	4,957	1,034	171	464	1,498	243	114	873	560
13-15 . . . . .	5,075	1,152	171	464	1,498	243	114	873	560
16-17 . . . . .	5,528	1,293	196	656	1,522	243	114	922	582
Total . . . . .	82,555	16,337	2,252	6,176	27,202	4,374	1,368	15,410	9,436
<b>WEST</b>									
Under 1 . . . . .	4,349	564	0	128	1,768	267	0	997	625
1 . . . . .	4,467	682	0	128	1,768	267	0	997	625
2-3 . . . . .	4,039	658	0	208	1,522	243	0	848	560
4-5 . . . . .	4,280	752	147	208	1,522	243	0	848	560
6 . . . . .	4,571	729	147	320	1,498	267	137	848	625
7-9 . . . . .	4,735	893	147	320	1,498	267	137	848	625
10-11 . . . . .	4,923	1,081	147	320	1,498	267	137	848	625
12 . . . . .	5,273	1,081	171	480	1,547	267	137	922	668
13-15 . . . . .	5,414	1,222	171	480	1,547	267	137	922	668
16-17 . . . . .	5,950	1,387	196	560	1,645	267	137	1,047	711
Total . . . . .	87,491	17,157	2,252	6,048	28,090	4,710	1,644	16,256	11,334

<sup>1</sup> Annual cost of raising a child from birth to age 18, by age, in a husband-wife family with no more than 5 children, spending at the *moderate* cost level. For more information on these and additional child cost estimates, see USDA Miscellaneous Publication No. 1411 by Carolyn S. Edwards, "USDA Estimates of the Cost of Raising a Child: A Guide to Their Use and Interpretation." Available free from: USDA, Family Economics Research Group, Federal Building, 6505 Belcrest Road, Hyattsville, Maryland 20782.

<sup>2</sup> Includes home-produced food and school lunches.

<sup>3</sup> Includes shelter, fuel, utilities, household operations, furnishings, and equipment.

<sup>4</sup> Includes personal care, recreation, reading and other miscellaneous expenditures.

## NEW CHILD COST BULLETIN

USDA Miscellaneous Publication No. 1411, "USDA Estimates of the Cost of Raising a Child: A Guide to Their Use and Interpretation," by Carolyn S. Edwards, has been published. This five-part guide starts with a description of the estimates that are available and short profiles of the cost of raising urban, rural nonfarm, and farm children. The next section provides important definitions and addresses the most frequently asked questions on the use and interpretation of the estimates. Adjustments of the estimates for specific situations and the limitations associated with the use of these adjustments are discussed. The third

section discusses resource materials on additional issues that are related to the cost of raising a child. The references are organized so that they correspond to the topics covered in the guide. Finally, the appendix includes the estimates, updated to June 1980 price levels.

For a free copy of the bulletin, send a post card to the Office of Governmental and Public Affairs, U.S. Department of Agriculture, Washington, D.C. 20250. Give the name and publication number when ordering and include your ZIP code with your address.

## 1980 CENSUS SUBJECT REPORTS

The Census Bureau has announced plans for releasing *Subject Reports* as a part of the 1980 Census publication program. There will be some changes from the reports issued following the 1970 Census; several new reports will be added in 1980, some older titles will be dropped, and a number of reports with the same titles as corresponding 1970 Census reports will incorporate new features. The following is a list of the proposed 1980 titles: (\*Indicates new report)

### Housing Subject Reports HC80-3

Housing of the Older Population  
Mobile Homes

### \*Residential Energy Patterns

Recent Movers  
Space Utilization  
Structural Characteristics  
Housing Quality  
Condominiums

### Population Subject Reports PC80-2

Black Population  
American Indians, Eskimos, and Aleuts in the United States

### \*American Indians, Eskimos, and Aleuts: Reservations and Historic Areas of Oklahoma

Asian and Pacific Islander Population in the United States

Persons of Spanish Origin and Persons of Spanish Surname

### Ancestry of the Population

#### \*Persons Born in Foreign Countries

#### \*Languages Spoken by Americans

Mobility for States and the Nation

Lifetime and Recent Migration

Mobility for Metropolitan Areas

Fertility

Household and Family Composition

Persons by Family Characteristics

Marital Characteristics

Persons in Institutions and Other Group Quarters

Education

Employment Status and Work Experience

Persons Not Employed

Journey to Work: Metropolitan Commuting Flows

Journey to Work: Characteristics of Workers in Metropolitan Commuting Flows

Place of Work

Occupational Characteristics

Industrial Characteristics

Occupation by Industry

Government Workers

Sources and Structure of Household and Family Income

Earnings by Occupation and Education

Characteristics of the Poverty Population

Poverty Areas in Large Cities

### \*Characteristics of the Metropolitan and the Nonmetropolitan Population



Persons in Metropolitan Areas by Census  
Tract Characteristics  
Characteristics of the Rural and Farm-  
Related Population  
\*The Older Population  
\*Women  
Veterans

*Childspacing and Current Fertility, Vocational  
Training, Occupation and Residence in 1965,  
Americans Living Abroad, Migration between  
State Economic Areas, State Economic Areas,  
Occupations of Persons with High Earnings,  
and Persons With Work Disability.*

The following eight topics covered in the 1970  
*Subject Reports* will not be repeated in 1980:

Source: U.S. Department of Commerce, Bureau of  
the Census, 1981, 1980 Census Update, Issue No. 18.

## CHARGES AND SOURCES OF PAYMENT FOR VISITS TO PHYSICIAN OFFICES

During the first quarter of 1977, the average charge for physicians' office visits was \$21.29. Of this charge, the patient or the patient's family paid an average of 69 percent, while private health insurance, medicare, medicaid, and other public sources paid averages of 16, 4, 7, and 4 percent, respectively. Other public sources included the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS); the Civilian Health and Medical Program of the Veterans' Administration (CHAMPVA); the Indian Health Service; the Veterans' Administration; the military; and other Federal, State, city, or county payers or providers.

Charges and sources of payment varied by the demographic characteristics of the patient (see table on p. 34). Children under 6 years of age reported the lowest average charge (\$14.62), while college graduates reported the highest average charge (\$28.10). In all cases, the patient or the patient's family was the major source of payment, which ranged from an average high of 76 percent for persons living in the South to a low of 55 percent for persons living in the West.

The mean visit charge was, on the average, higher for persons reporting excellent health than for persons reporting lower health status. The average proportion of the charge paid by the family declined with perceived health status. Although the family and private health insurance were the largest payers for office charges for all health status categories, medicare and medicaid assumed higher proportions of the charges for those in fair or poor health status than for those in excellent or good health.

The source of payment for physicians' office visits varied substantially among age and racial groups. White families, for example, were more likely than black families to pay physicians' charges with their own funds, as shown below:

	Under 6 years	6-18 years	19-54 years	55-64 years	65 years or older
<i>Average proportion paid by family</i>					
White	0.78	0.73	0.69	0.73	0.61
All other	.49	.48	.61	.70	.61

This difference was greatest for children under 6 years of age but became narrower in each successive age group until the elderly age group, in which the proportion paid by all others equaled that paid by whites. Thus, the average proportion paid by the family decreased with age for whites and increased with age for all others. Although there was little or no difference between racial groups in the proportion paid by private health insurance, there were differences in the proportion paid by medicaid. Medicaid paid a smaller percentage of physicians' charges for whites than for all others.

Source: Rossiter, Louis F., and Matthew A. Salomon, 1981, Charges and sources of payment for visits to physician offices, *NCHSR National Health Care Expenditures Study*, Data Preview 5, U.S. Department of Health and Human Services, National Center for Health Services Research.

Charges and sources of payment for physician office visits:<sup>1</sup> Mean visit charge,  
source of payment, and selected patient characteristics,  
January 1 - March 31, 1977

Patient characteristics	Mean charge per visit	Source of payment				
		Family	Private health insurance	Medicare <sup>2</sup>	Medicaid	Other <sup>3</sup>
	<i>Dollars</i>	<i>Average percent paid</i>				
All patients . . . . .	21.29	69	16	4	7	4
<i>Age</i>						
Less than 6 years . . . . .	14.62	75	11	( <sup>4</sup> )	11	2
6-18 years . . . . .	18.92	71	17	( <sup>4</sup> )	9	3
19-54 years . . . . .	22.88	68	20	( <sup>4</sup> )	6	5
55-64 years . . . . .	21.37	72	17	2	5	3
65 or older . . . . .	23.15	61	6	26	5	1
<i>Sex</i>						
Male . . . . .	20.83	67	19	4	5	5
Female . . . . .	21.61	70	14	5	8	3
<i>Race</i>						
White . . . . .	21.39	70	17	5	5	4
All other . . . . .	19.89	59	12	3	22	5
<i>Years of education<sup>5</sup></i>						
0-11 . . . . .	18.91	65	12	9	10	3
12 . . . . .	22.88	70	19	3	4	4
13-15 . . . . .	26.87	65	22	3	3	7
16 or more . . . . .	28.10	71	20	5	( <sup>4</sup> )	3
<i>Place of residence</i>						
SMSA . . . . .	22.40	67	17	5	7	4
Other . . . . .	18.59	73	14	3	5	4
<i>U.S. Census region</i>						
Northeast . . . . .	21.02	68	15	5	8	3
North Central . . . . .	18.08	71	18	2	5	3
South . . . . .	20.39	76	12	4	4	3
West . . . . .	28.01	55	22	6	11	6
<i>Perceived health status</i>						
Excellent . . . . .	23.20	73	18	2	4	4
Good . . . . .	20.14	70	16	4	6	4
Fair . . . . .	20.62	65	14	8	10	4
Poor . . . . .	20.23	55	14	10	16	4

<sup>1</sup> Excludes flat fee and free-of-charge visits.

<sup>2</sup> Medicare being primarily a program for persons over age 65, the average proportion paid by medicare (parts A and B) is nearly 0 for those in the other age groups.

<sup>3</sup> Includes CHAMPUS, CHAMPVA, the Indian Health Service, the Veterans' Administration, the military, and other Federal, State, city, or county payers or providers.

<sup>4</sup> More than 0 but less than 0.5 percent.

<sup>5</sup> Includes only those 17 years of age and older.

Source: Rossiter, Louis F., and Matthew A. Salomon, 1981, Charges and sources of payment for visits to physician offices, *NCHSR National Health Care Expenditures Study*, Data Preview 5, U.S. Department of Health and Human Services, National Center for Health Services Research.

## NEW YORK FAMILY BUDGET ANNUAL PRICE SURVEY, OCTOBER 1980

The Community Council of Greater New York has issued its 21st edition of the "Annual Price Survey," the first since 1976. The survey reflects budget costs in October 1980 for families living at a moderate level in New York City, and gives cost data based on the "Family Budget Standard," revised by the Community Council in 1970. The survey updates the cost of the council's "Family Budget Standard," which describes the quantities of goods and services required by families of moderate income, taking account of the age, sex, and employment status of each family member, as well as family size.

According to the survey, a family of four required \$17,747 (plus taxes) annually to live

at a moderate level in the New York City area in October 1980; a husband and wife with one young child required \$14,591 (plus taxes). The survey's retired couple required \$10,158 in 1980 for goods and services, with the largest share going to housing. The average monthly social security benefit—\$561 for a retired worker and dependent spouse—provided less than two-thirds of the income the couple required to maintain a moderate level of living in New York City.

The "Annual Price Survey" is available for \$8 from the Community Council of Greater New York, 225 Park Avenue South, New York, N.Y. 10003.

## PERSONS OF SPANISH ORIGIN IN THE UNITED STATES: MARCH 1980

In March 1980, 13.2 million persons of Spanish origin lived in the United States.<sup>1</sup> Of that number, 60 percent were of Mexican descent, 14 percent were of Puerto Rican descent, 6 percent were of Cuban descent, 8 percent were of Central or South American descent, and 12 percent were of other Spanish descent. About 84 percent of all Spanish families lived in metropolitan areas, compared with 66 percent of all other families. The Spanish origin population was younger than the non-Spanish population as a result of higher fertility; the median age of Hispanic persons (22 years) was substantially lower than that for persons not of Spanish origin (31 years).

Median income in 1979 was lower for families of Spanish origin (\$14,600) than for other families (\$20,000). Median income differed among the Spanish origin groups and was, for example, \$17,500 for families of

Cuban descent and \$9,900 for families of Puerto Rican descent.

These low income figures might be attributed to the higher than average unemployment rate maintained by persons of Spanish origin. Of the 5 million persons of Spanish origin aged 16 and over in the civilian labor force in March 1980, 9 percent were unemployed. This compares with just under 7 percent for all other persons. As with income, the unemployment rate differed by type of Spanish origin; 5 percent of Cuban descendants compared with 12 percent of Puerto Rican descendants were unemployed.

Persons of Spanish origin were concentrated in low-paying occupations. Although 24 percent of employed persons of Spanish origin were employed as operatives, only 9 percent were employed in professional occupations, which compares with 14 and 17 percent, respectively, for all other employed persons.

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<sup>1</sup> The estimates of the Spanish-origin population in this report are based on updated population controls from the 1970 census and do not agree with counts from the 1980 census.

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Source: U.S. Department of Commerce, Bureau of the Census, 1981, Persons of Spanish origin in the United States: March 1980 (advance report), *Current Population Reports*, Population Characteristics, Series P-20, No. 361.



## HOUSING RESEARCH, REPORTS, AND FORTHCOMING DATA

### Housing Research Data Center

The Housing Research Data Center, a central depository of data files sponsored by the U.S. Department of Housing and Urban Development (HUD), began phase I of its operation in February 1981. The center is intended for use by researchers who are interested in the study of housing, social policy, and related issues. HUD offers these data files to the public research community by providing nationwide access, full documentation, software for analysis, and user consulting and support services.

The data center is operated by DUALabs (Data Use and Access Laboratories) through the computer facilities of National CSS. Hours of operation for inquiries and consultation are 9 a.m. to 5 p.m. (eastern time), Monday through Friday. Data can be accessed through NCSS 24 hours a day, 7 days a week.

Training and consultation services are available for newcomers to computer-assisted research; experienced users can access the data by opening an account and using the *Housing Research Data Center Manual* with their own terminals in their own facilities.

To obtain further information or to open an account, contact:

Becky Maguire  
Housing Research Data Center  
DUALabs  
1601 North Kent Street  
Arlington, Va. 22209  
Phone: 703-525-1480

### Survey of Residential Finance

The Bureau of the Census of the U.S. Department of Commerce began its fourth Survey of Residential Finance in April 1981. The survey, which is a followup based on the 1980 Census, will poll about 60,000 residential properties—owners, renters, and mortgage holders—including condominiums for the first time.

The survey is designed to provide information on the current financial status of investment in residential properties. Property owners will be asked information including the number

of housing units on the property, purchase price, current market value, year of construction, and certain types of expenses. Owners of mortgaged properties will be asked questions on the type and amount of the mortgage, the year the mortgage was made, and monthly payments. Lenders will be asked for information such as the interest rate of the mortgage, current balance, prepayment penalties, and whether the mortgage can be assumed.

The data will be tabulated (probably in late 1982) for the Nation as a whole, for each of the four regions, and collectively for metropolitan areas, nonmetropolitan areas, and for central cities and suburban rings within metropolitan areas.

For more information contact:

Peter J. Fronczek  
Housing Division  
Bureau of the Census  
Room 300, Professional Center Bldg.  
Washington, D.C. 20233  
Phone: 301-763-2866

**1979 Statistical Yearbook**, U.S. Department of Housing and Urban Development, Office of Organization and Management Information. 1980.

The HUD Statistical Yearbook brings together comprehensive and detailed data on program and financial operations of HUD and statistical information related to housing and urban activities. The first eight sections present HUD program status and activity data, compiled by the administering offices. The ninth section titled "General Statistics" contains data published by other government departments and some private organizations. These data cover such topics as population; households and families; housing occupancy and vacancy, production, and sales; construction expenditures and costs; and mortgage financing.

Single copies of the 1979 Statistical Yearbook, HUD-338-8-UD, are available free from Publications Service Center, HUD, Room B-258, 451-7th Street, SW., Washington, D.C. 20410.

**Characteristics of New Housing: 1980**, U.S. Department of Commerce, Bureau of the Census, and U.S. Department of Housing and Urban Development. 1981.

This annual joint publication of the U.S. Department of Commerce, Bureau of the Census, and the U.S. Department of Housing and Urban Development provides statistics on selected physical and financial characteristics of new housing. The report includes chapters on the characteristics on single-family and multifamily housing completed in 1980, single-family houses sold during 1980, and contractor-built housing starts.

According to the report, an estimated 1,502,000 new houses were completed during 1980; 957,000 were single-family structures. The median size of these single-family dwellings was 1,595 square feet, compared with 1,645 square feet in 1979—a decrease of 3 percent and a reversal of the trend toward larger houses that has prevailed since 1975. This decrease in size is consistent with data from surveys of the National Association of Home Builders. In addition, proportionately fewer houses were built with basements, garages, fireplaces, and four or more bedrooms. The only measured amenity to increase was central air-conditioning. Electricity was used to heat about half of all new one-family houses, while the proportion heated with gas increased slightly. The proportion of new single-family houses heated by oil continued to decline.

Of the estimated 545,000 units in multifamily buildings completed in 1980, 32 percent were for sale, as compared with 24 percent in 1979 and 18 percent in 1978. Unlike one-family houses, units in multifamily buildings completed in 1980 were larger than those completed in 1979. Proportionately more units completed in 1980 had air-conditioning, two or more bathrooms, and two or more bedrooms.

The median sales price of new single-family houses sold in 1980 was \$64,500, compared with \$62,900 in 1979. In 1980, the average price per square foot, of houses for which figures were available, was \$35.20, compared with \$32.40 in 1979, and \$28.50 in 1978. The price index of houses of comparable quality sold in the United States rose from 130.8 in 1979 (1977=100) to 145.2 in 1980.

Single copies of *Characteristics of New Housing: 1980*, Construction Reports C25-80-13, are available for \$2.50 from Data User Division, Customer Service Branch (Publications), Bureau of the Census, Washington, D.C. 20233.

**Survey of Homeowner Experience with New Residential Housing Construction**, U.S. Department of Housing and Urban Development, Office of Policy Development and Research, and the Federal Trade Commission. Richard L. Kaluzny, Mathematica Policy Research, Inc., Princeton, N.J. 1980.

This report presents information on a national survey of new homebuyers' experiences regarding the incidence and repair of problems in their new homes. The study focuses on all non-builder-resolved problems (i.e., all unresolved and owner-resolved problems) estimated to cost \$100 or more to repair. The findings are presented for three areas: Problem incidence, problem cost, and owner-builder relations. Footnotes, tabular data, and information on survey methods and variable definitions are included.

Single copies of the report, PDR-622, are available free from HUD USER, P.O. Box 280, Germantown, Md. 20767.

**Housing Needs of the Rural Elderly and Handicapped**, Eric Nathanson, Department of Housing and Urban Development, Office of Policy Development and Research, Washington, D.C. 1980.

This report was prepared in response to a Congressional directive in Public Law 96-153 that requires HUD to transmit to Congress an assessment of the housing needs of the rural elderly and handicapped, alternatives to meeting these needs, and present programs available to these people. Issues considered in the delivery of assistance include attitudinal factors, support services, institutional constraints, local sponsorship, and local government capacity. Alternative approaches include financing mechanisms, sponsorship arrangements, and alternative housing types.

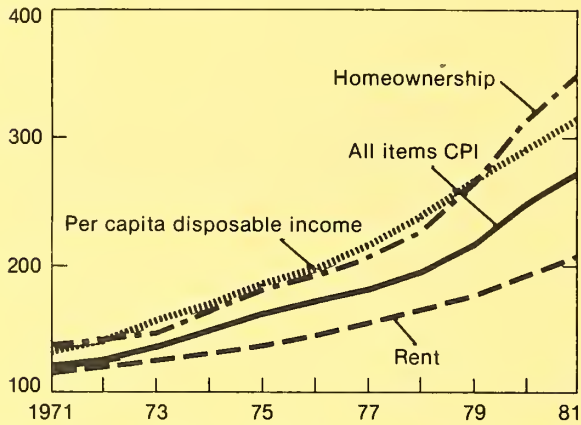
Single copies of the report, PDR-633, are available free from HUD USER, P.O. Box 280, Germantown, Md. 20767.

## SOME NEW USDA CHARTS

Chart 134

### Change in Housing Prices Relative to Other Items

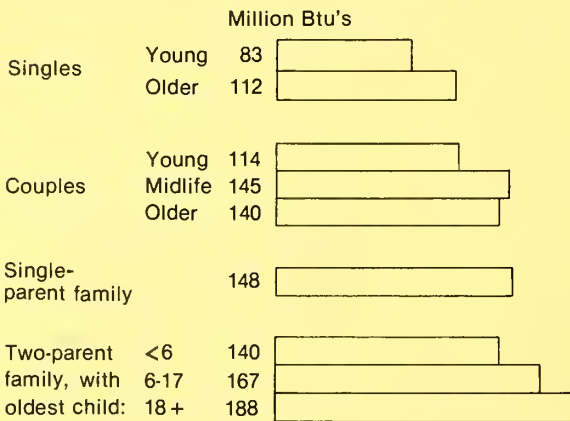
% of 1967



Annual averages 1971-80; June data for 1981.  
Source: Bureau of Labor Statistics and Bureau of Economic Analysis.

Chart 139

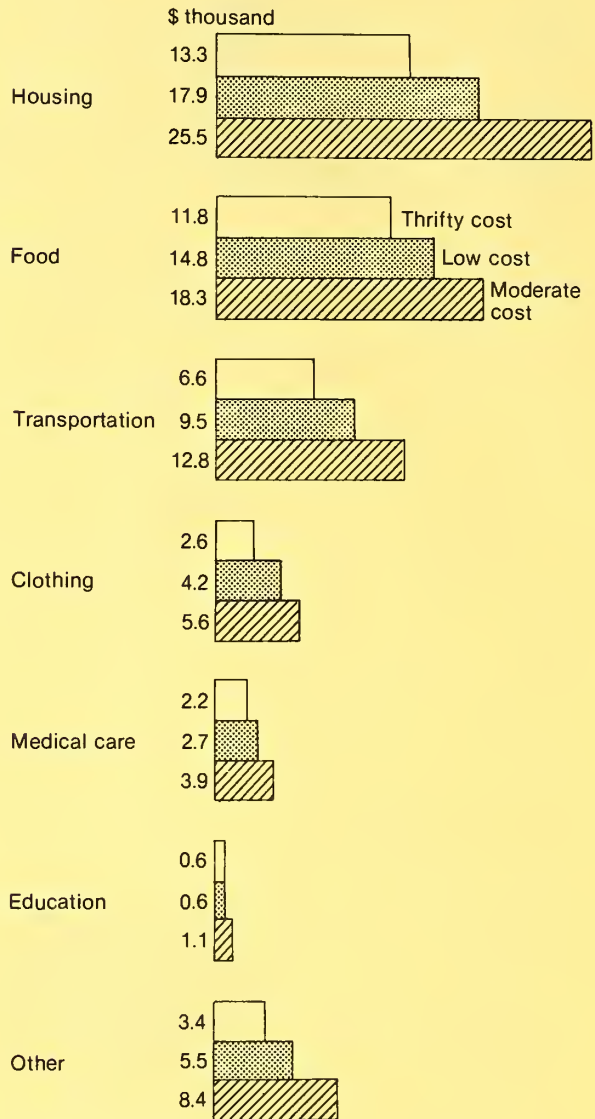
### Household Energy Use by Family Type



April 1978-March 1979 data. Young, midlife, and older refer to household head's age of under 35, 45-64, and 65 and older, respectively.

Chart 132

### Cost of Raising North Central, Urban Children

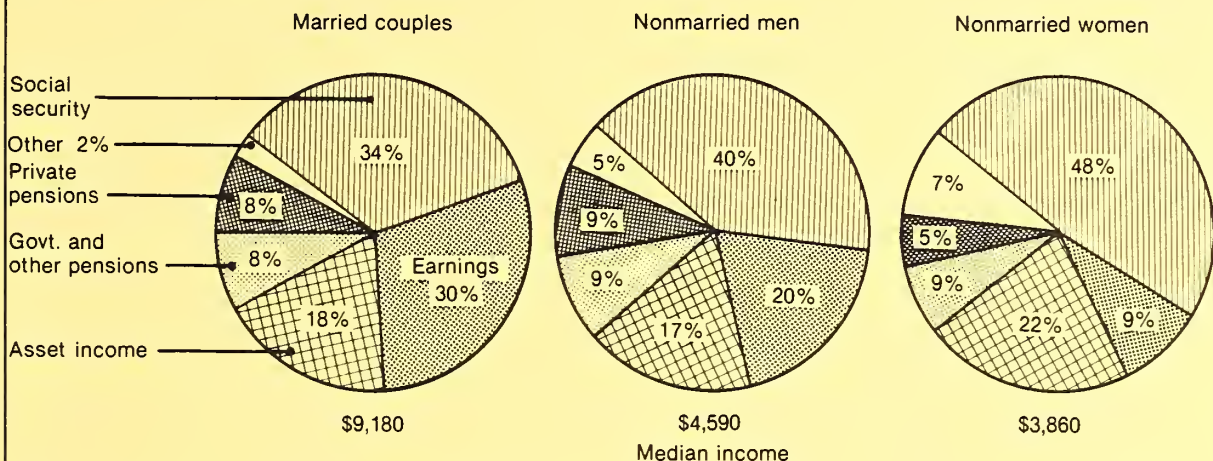


June 1981 data. Birth to age 18.



Chart 125

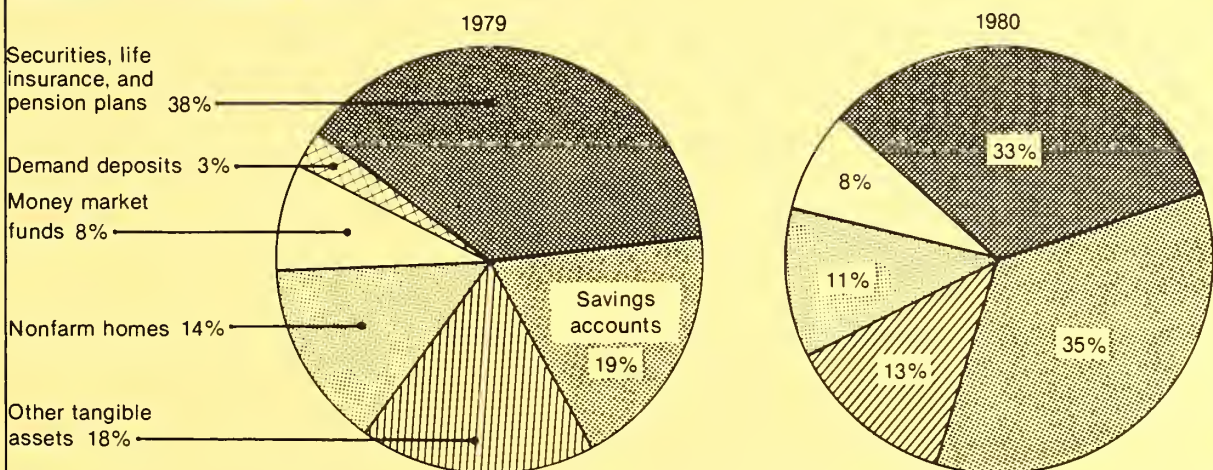
# Income of the Elderly



Median income, 1978. Other includes public assistance and other income sources.  
Source: Social Security Administration.

Chart 130

# Distribution of the Saving's Dollar



Demand deposits accounted for less than 1 percent in 1980. Other tangible assets includes consumer durables, nonresidential fixed assets, and inventories.  
Source: Federal Reserve Board.

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Cost of food at home estimated for food plans at 4 cost levels, September 1981, U.S. average<sup>1</sup>

Sex-age groups	Cost for 1 week			Cost for 1 month				
	Thrifty plan <sup>2</sup>	Low-cost plan	Moderate-cost plan	Liberal plan	Thrifty plan <sup>2</sup>	Low-cost plan	Moderate-cost plan	Liberal plan
FAMILIES								
Family of 2: <sup>3</sup>								
20-54 years . . . . .	33.20	42.90	53.70	64.30	144.00	185.70	232.70	278.70
55 years and over . . . . .	29.80	38.20	47.30	56.40	129.30	165.70	205.00	244.60
Family of 4:								
Couple, 20-54 years and children—								
1-2 and 3-5 years . . . . .	47.20	60.30	75.00	89.90	204.40	260.80	325.10	389.10
6-8 and 9-11 years . . . . .	56.90	72.90	91.20	109.20	246.60	315.50	395.30	473.10
INDIVIDUALS <sup>4</sup>								
Child:								
7 months to 1 year . . . . .	6.80	8.20	10.00	11.80	29.30	35.40	43.30	51.10
1-2 years . . . . .	7.70	9.70	11.90	14.20	33.20	41.90	51.60	61.30
3-5 years . . . . .	9.30	11.60	14.30	17.20	40.30	50.10	62.00	74.40
6-8 years . . . . .	11.80	15.10	18.80	22.50	51.30	65.20	81.60	97.60
9-11 years . . . . .	14.90	18.80	23.60	28.20	64.40	81.50	102.20	122.10
Male:								
12-14 years . . . . .	15.80	20.00	25.00	29.80	68.60	86.50	108.20	129.30
15-19 years . . . . .	17.30	22.00	27.60	33.10	75.10	95.40	119.40	143.40
20-54 years . . . . .	16.70	21.60	27.20	32.70	72.20	93.40	117.80	141.60
55 years and over . . . . .	14.80	19.00	23.60	28.30	64.20	82.40	102.40	122.80
Female:								
12-19 years . . . . .	14.00	17.80	22.00	26.30	60.70	77.10	95.50	113.80
20-54 years . . . . .	13.50	17.40	21.60	25.80	58.70	75.40	93.70	111.80
55 years and over . . . . .	12.30	15.70	19.40	23.00	53.30	68.20	84.00	99.60
Pregnant . . . . .	17.00	21.50	26.50	31.40	73.50	93.20	114.70	136.20
Nursing . . . . .	18.00	22.80	28.40	33.70	78.00	98.80	122.90	146.10

<sup>1</sup> Assumes that food for all meals and snacks is purchased at the store and prepared at home. Estimates for each plan were computed from quantities of foods published in the Winter 1976 (thrifty plan) and Winter 1975 (low-cost, moderate-cost, and liberal plans) issues of *Family Economics Review*. The costs of the food plans were first estimated using prices paid in 1965-66 by households from USDA's Household Food Consumption Survey with food costs at 4 selected levels. USDA updates these survey prices to estimate the current costs for the food plans using information from the Bureau of Labor Statistics: "Estimated Retail Food Prices by Cities" from 1965-66 to 1977 and "CPI Detailed Report," tables 3 and 9, after 1977.

<sup>2</sup> Coupon allotment in the Food Stamp Program based on this food plan.

<sup>3</sup> 10 Percent added for family size adjustment. See footnote 4.

<sup>4</sup> The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person—add 20 percent; 2-person—add 10 percent; 3-person—add 5 percent; 5- or 6-person—subtract 5 percent; 7- or more-person—subtract 10 percent.

## CONSUMER PRICES

Consumer Price Index for all urban consumers  
(1967 = 100)

Group	Sept. 1981	Aug. 1981	July 1981	Sept. 1980
All items . . . . .	279.3	276.5	274.4	251.7
Food . . . . .	278.0	277.4	276.2	261.1
Food at home . . . . .	273.2	272.8	271.6	258.9
Food away from home . . . . .	294.8	293.7	292.4	271.4
Housing . . . . .	303.7	299.7	297.0	267.7
Shelter . . . . .	326.9	322.0	318.5	285.3
Rent . . . . .	211.9	210.3	207.8	195.1
Homeownership . . . . .	367.8	361.8	358.0	317.6
Fuel and other utilities . . . . .	331.1	327.8	325.1	288.2
Fuel oil, coal, and bottled gas . . . .	673.4	674.6	677.9	561.5
Gas (piped) and electricity . . . . .	364.5	360.8	357.6	318.4
Household furnishings and operation . . . . .	224.5	222.9	222.4	209.2
Apparel and upkeep . . . . .	190.7	187.4	184.7	182.2
Men's and boy's . . . . .	181.1	177.6	175.6	171.7
Women's and girls' . . . . .	162.9	157.8	153.5	159.0
Footwear . . . . .	202.4	200.0	199.0	193.2
Transportation . . . . .	285.2	283.7	282.6	254.7
Private . . . . .	281.9	280.5	279.6	253.2
Public . . . . .	329.1	326.5	323.1	271.0
Medical care . . . . .	301.7	299.3	295.6	270.6
Entertainment . . . . .	224.0	222.3	221.1	209.8
Other goods and services . . . . .	243.0	235.6	234.6	220.6
Personal care . . . . .	236.3	235.1	233.4	216.7

Source: U.S. Department of Labor, Bureau of Labor Statistics.

## HEATING WITH WOOD

The number of homes in which wood is used to either supplement or totally supply present heating requirements is increasing throughout the Nation. Wood has become one of the favorite alternative fuels and could help make regions less dependent on imported, expensive, and increasingly scarce fuels.

A new factsheet on heating with wood from the U.S. Department of Agriculture provides the consumer with information on the advantages of heating with wood and facts

needed for the purchase of wood for heating. Presented, also, is information on the most economical, efficient, and safe way to burn wood; and diagrams for correct installation of stoves or fireplaces.

Single free copies of the factsheet, *Wood Heat: Is It Right for You?*, AFS 4-2-1, are available from the U.S. Department of Agriculture, Office of Government and Public Affairs, Washington, D.C. 20250.

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Issued January 1982